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ABSTRACT

This report presents findings of an evaluation of the Trades Education (TRADEC) schemes to report on the approach's distinctive features and to assess its effectiveness and potential to meet the needs of the populations it serves. Chapter 1 describes the origins and key features of TRADEC courses; succeeding chapters examine how they were implemented. These key features and issues in the operation of the TRADEC system are commented upon in chapters 2 through 9: initiating and maintaining a TRADEC scheme; the client populations; special curriculum features; learner benefits; employer involvement and commitment; implementation, monitoring, and support; assessment; and costs and viability. Chapter 10 presents five case studies of selected schemes within the five fields in which implementation has been achieved. The final chapter compares TRADEC both with conventional vocational day-release courses and the emerging schemes of vocational preparation. It concludes that TRADEC schemes in design have the potential to align themselves with other approaches, but in operational terms more needs to be done. (YLB)

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FURTHER EDUCATION UNIT

A Project Report

ED237718

TRADEC II

An evaluation of Trades Education schemes

II Research Findings

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Department of Educational Studies
University of Surrey

CE037781

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Dear Sir/Madam

TRADEC II - AN EVALUATION OF TRADES EDUCATION SCHEMES

The attached document is a more comprehensive version of the synthesis report, published in March 1983 as TRADEC I. It is a substantial document and a smaller distribution than TRADEC I is envisaged.

TRADEC II, like TRADEC I is the result of a project carried out by Dr Karen Evans and her team of researchers from the University of Surrey.

Chapter I describes the origins and key features of TRADEC courses and the succeeding chapters examine how they were implemented. As the synthesis document has already indicated, the researchers conclude that TRADEC schemes in design have the potential to align themselves both with standards-based initial training and vocational preparation. In operational terms however, there is more to be done. TRADEC II identifies in some detail what needs to be done.

FEU sought to evaluate TRADEC because of its apparent unique position with respect to conventional vocational day-release courses and the emerging schemes of vocational preparation. It retains that uniqueness, and this report, by examining the strengths and weaknesses in its operation, should contribute to its further development.

Although copies of this document are limited, the synthesis document TRADEC I is still freely available.*

Yours faithfully

Jack Mansell

JACK MANSELL
Chief Officer

* A third volume TRADEC III, which describes and illustrates the research methodology, will be on a more limited distribution.

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b) to determine priorities for action to improve the provision of further education and to make recommendations as to how such improvement can be effected;

c) to carry out studies in further education and to support investigations of and experimentation in, and the development of further education curricula and to contribute to and assist in the evaluation of initiatives in further education;

d) to disseminate and publish information and to assist in the dissemination and publication of information about recommendations for and experiments and developments in further education.

The publications in this series of Reports are intended to inform teachers and others and to stimulate professional discussion about matters of concern to the FE service. The views expressed are those of the authors and are not necessarily those of the Units Board of Management. A limited number of extra copies of this report are available from

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CHAPTER I THE TRADEC SYSTEM

THE ORIGINS OF TRADEC

1. The origins of the TRADEC system lie in a working group established in 1971 by the Yorkshire Council for Further Education to consider 'The Future of Craft Practice Courses,' under the Chairmanship of Mr. J. Longden. The terms of reference of the working group were

> 'to evaluate the educational needs of engineering students whose needs are not met by the Engineering Craft Studies Courses, and subsequently to prepare a suitable FE course or courses to meet these needs' (Resolution 114 of the Executive Committee)

2. In its appraisal of 'factors' indicating the need for a new course, the working group pointed to 'the steady increase in the proportion of people employed in Engineering and Engineering-type occupations who are in the limited skills category' If the new course were to attract a larger population than the short-fall resulting from the ending of CGLI 193 and meet the needs of people in the meddle band it would, the Working Group asserted, have to depart from the General Study pattern of most existing courses. The features held to be essential for the new course to achieve success were those of capability for 'alignment with the particular industrial conditions in which the student works'. The course, it was proposed, should be arranged locally, managed in cooperation with industry to meet the needs of specific groups of students. It should be conducted 'practically' and should allow a useful qualification to be obtained whether the period of attendance was one year or more.*

3. The course outline, developed on these bases, was accepted on recommendation to the Examination Board that the new course should be provided for those students for whom the 500 series courses were considered unsuitable either because of content and standard, or lack of complementary training, and who are in engineering occupations which justify a significant amount of technical education. The course, it was proposed, should allow for transfer of suitable students to Engineering Craft Studies Part II. The title Mechanical Trades Principles was selected and the syllabus for all three stages completed by 1972. The distinctive features of the TRADEC system as it currently operates are embodied and clearly recognisable in the original course outline. They have however evolved considerably from that time, through refinement of their conceptual bases, through experience of their implementation and through contextual trends and developments.

4. The Trades Principles development, therefore, clearly has its origins in the response to needs generated by phasing out of Craft Practice among those young workers for whom the City and Guilds Craft Studies Series would either be an incomplete experience, or would be too far removed from their needs on the job.

5. Pilot schemes for Mechanical Trades Principles were run in 1973/74, and evaluated. The possibilities for extension of the Course Model adopted in the 'Mechanical Trades' area to other areas having potential clients whose needs were unmet or unsatisfactorily met, were quickly perceived. In 1976, a TRADEC Advisory Committee was established to investigate and make recommendations to the Examinations Board on

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* the greater flexibility of mode and length of study which now characterises the scheme was introduced subsequently

subject areas for development.* It was also responsible for drafting and preparation of the syllabus and able to establish ad hoc working parties (subsequently writing groups) as necessary, to undertake scheme writing activities. The shift from the purposes of developing a single scheme to meet specific need to that of developing a system aimed to meet the needs of a stratum of the workforce across the whole occupational field evolved as subject areas were identified by the Advisory Committee. The identification of occupational groupings for which schemes could be constructed and subsequently, the identification of 'Zones' comprising sets of related schemes, evolved slowly over the period to the 'strategy' for coverage represented in Figure 1.1.

6. The approach to occupational grouping has essentially been a pragmatic one. The identification of occupational fields underpinned by similar processes, materials and technologies has formed the basis for development of schemes. The zones and occupational groupings differ quite substantially from those developed through systematic skills analysis. However, the limited experience of application of the variety of alternative occupational 'families' and groupings does not permit judgments to be made at this stage, leading to preference, by virtue of its performance, of any one model of grouping over another. However, one weakness of the TRADEC model may be it's lack of underpinning by the analysis of generic skills which may render it less able to meet adequantely the needs of the full range of workers which it seeks to draw under each scheme umbrella.**

7. In 1979, Department of Industry funding was obtained to support the writing of five schemes. The schemes concerned were Powered Traction Trades Principles, Electrical Trades Principles, Fabrication and Joining, Commercial, and Food Trades Principles. Further schemes currently in preparation are shown in Fig.1.1.

8. Following the establishment of schemes for the employed, the possibilities of extension of the TRADEC approach to other targets are under examination.+ The potential use of the TRADEC approach in the final year of school, in bridging the transition from school to work and/or college has been explored through a small number of pilot schemes implemented cooperatively with schools. Experience is being gained of the application of TRADEC to young people on Work experience programmes, through the increased enrolment of young people within this category in the standard schemes. The more systematic application of the TRADEC approach to this target is under consideration, as is the possibility of application to unemployed adults engaged in MSC programmes. The potential for use of the TRADEC model as a base for prevocational schemes on ABC lines is also under examination. In the context of expansion of Vocational Preparation into a comprehensive scheme, the transferability of any system designed for the population in question between the alternative bases of employment, unemployment and full-time education, is of considerable importance and is discussed further in Chapter XI

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* The Advisory Committee and Working Party were dissolved in July 1979, replaced by the TRADEC Committee Structure described in para

**See FEU 'Basic Skills' (Nov. 1982.) Section Two

+ A Working Party considering policy in respect of applications of the TRADEC model was in progress at the time of writing.

FIG 1.1 TRADEC SCHEMES IN OPERATION, UNDER DEVELOPMENT AND PROPOSED (at 1/6/82).

ENGINEERING ZONE

Mechanical Trades Principles	*
Fabrication & Joining Trades Principles	*
Powered Traction Trades Principles	*
Electrical Trades Principles	*

BUSINESS ZONE

Distribution & Consumer Trades Principles	*
Food Trades Principles	*
Commercial Trades Principles	*
Graphic & Arts Trades Principles	‡

CARING OCCUPATIONS ZONE

Health & Welfare Trades Principles	+
Recreation & Leisure Trades Principles	+
Public Service Trades Principles	‡

PROPERTY OCCUPATIONS ZONE

Property Maintenance Trades Principles	+
Construction Trades Principles	‡
Wood & Furniture Trades Principles	‡

PROCESS INDUSTRIES ZONE

Fibre, Fabric & Making-up Trades Principles	‡
Extraction Industries & Products Trades Principles	+
Chemical Trades Principles	‡
Science Trades Principles	‡

NATURE PRODUCTS ZONE

Agricultural Trades Principles	‡
Forest Products Trades Principles	‡
Marine Products Trades Principles	‡

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* Schemes ready for implementation

+ Schemes in preparation

‡ Schemes 'in prospect'

THE GROWTH AND DISSEMINATION OF TRADEC SCHEMES

9. The number of schemes implemented in colleges in the Yorkshire and Humberside region has grown steadily from 1974, the implemented schemes diversifying as the written schemes have been prepared and piloted. A list of schemes implemented in England and Wales during the period of the research is given, together with basic details of their operation, in Table 1.1 and Table 1,2(pp 22-27) summarises the schemes operating in Scotland. The number of 'operational' TRADEC Colleges in Yorkshire and Humberside increased to 13 in 1980/81 and to 15 in 1981/82 with some fluctuations due to discontinued or periodic offering of schemes for viability or other reasons.*

10. Five types of schemes were in operation at the time of the research. These were:

Mechanical Trades Principles
Fabrication and Joining Trades Principles.
Distribution and Consumer Trades Principles.
Commercial Trades Principles.
Food Trades Principles.

Powered Traction Trades Principles had been 'piloted' with 2 students at Keighley College in 1980/81, but attempts to launch pilots in several colleges in 1981/82 had proved abortive through recruitment problems. Electrical Trades Principles too was ready for operation by 1981/82. Again the recruitment difficulties which have hit all day release or equivalent courses in a time of recession, have delayed the successful launch of this scheme.

11. In parallel with the moves to extend TRADEC model both to new occupational zones and to targets other than that of young people in employment, consistent efforts have been made by and through the former YHCFE** to promote the TRADEC system beyond the Yorkshire and Humberside area. As early as 1973, means by which to secure the promotion of MTP as a nationally certified course offered alongside the 200 series were discussed in the working party on the Future of Craft Practice Courses. Resolutions were passed that Further Education examining bodies in England and Wales be approached to secure their participation in offering pilot courses, and the promotion of TRADEC to and through RAC was given attention.

12. In 1978/79 the City and Guilds of London Institute entered into a 'loose agreement' to promote TRADEC in order to establish pilot TRADEC schemes in other regions, including London and the Home Counties. The outcome of the initiatives of CGLI, which included establishing contacts with interested Principals, and an attempt to convene a Working Group of interested parties under the auspices of the London and Home Counties RAC, was a degree of interest, and some moves towards establishing TRADEC pilots in selected colleges in the South of England. No schemes reached implementation, however. Factors militating against implementation in these instances are discussed further in the context of viability and transportability, in Chapter 8. .

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* e.g. College N was not operational in 1980/81, having put its Distribution and Consumer scheme into temporary abeyance following the change in the relationship between TRADEC and DITB/UVP

** The Yorkshire and Humberside Councilfor Further Education (YHCFE) was replaced by the new regional body, the Yorkshire and Humberside Association for Further and Higher Education (YHAFHE) in 1982.

13. In the course of moves towards the promotion of TRADEC through the RACs, the interest of Northern Council for FE was attracted at an early stage, and a working relationship was established between NCFE and YHCFE. One representative of the Northern Region sits, as an observer, on the Trades Principles Committee, and opportunities to participate , as appropriate, in Writing Groups are offered to interested practitioners from the region. The Powered Traction Writing Group, which has recently completed its writing process, is chaired by a Principal from the Northern Region, and involves practitioners drawn from Colleges both in the Yorkshire and Humberside and Northern regions. In accordance with YHAFHE guidelines concerning administrative arrangements between itself and other RACs in the implementation of TRADEC, the intention is that NCFE should take over, completely, the certification and moderating functions in respect of schemes operating in the Northern Region, after a short period of joint operation. At the time of research NCFE, itself undergoing reorganisation was planning to establish a Trades Principles Sub Committee as a basis for development, and was actively seeking to promote and encourage TRADEC in the region, with reservations concerning only the status of the development in the context of the movement towards coherent and comprehensive Vocational Preparation provision.

14. In 1980/81 the first TRADEC schemes to be successfully implemented outside the Yorkshire and Humberside Region were launched in Scotland under the responsibility of SCOTEC and SCOTBEC. Six schemes were offered at Stage 1 in 1980/81 with expansion to 7 at Stages 1 and 2 in 1981/82. The implementation followed consultations between SCOTEC, SCOTBEC and YHCFE. It was stimulated by combined pressure from some colleges for support in making provision of this kind, and by general interest on the part of SCOTBEC/SCOTEC in the potential of the TRADEC development to perform certain specific functions within their overall pattern of provision. The implementation is overseen by a SCOTEC/SCOTBEC Joint Advisory Committee for TRADEC schemes. Again, one of the principal concerns has been finding a 'niche' for TRADEC within the existing and developing range of provision. At the time of the research SCOTEC saw the scheme primarily as a Craft Practice replacement for those not receiving complementary training and therefore saw little role for Stage 2 or 3, other than that of feeding into City and Guilds Craft Studies. In the Distribution and Consumer area, the role of TRADEC in relation to the National Distribution Certificate is also under consideration. The national coordination of TRADEC within the context of other provision in Scotland has produced some adaptations of the scheme and differences in its delivery, which will be considered in Chapter 11. The Scottish TRADEC initiative, following clarification of differences between the interpretations of the model held by the former YHCFE and by SCOTEC/SCOTBEC was approved by YHCFE as appropriately named and certificated as TRADEC during 1981/82.

15. In 1981/82 one scheme became operational in England and Wales outside the Yorkshire and Humberside region, through direct contact between a member of College Staff and YHCFE. This is the Fabrication and Joining Trades Principles Scheme operating in Shrewsbury College. Of three TRADEC schemes attempted, Fabrication and Joining was alone in reaching viable numbers and has been developed with the support and supervision of YHCFE. One representative of the West Midlands Advisory Council for Further Education is an observer to the Trades Principles Committee.

16. The introduction of the DES/DE UVP Pilot Programme in 1976 has exerted important influences on the growth and on the features of the TRADEC development. On introduction of the UVP Pilot Programme, the similarity in target with that stated to be a primary target of the TRADEC development (i.e. the non-participants in Further Education among young people in employment) and of the stated aims of the two programmes, was immediately apparent. An application was made by the former YHCFE for recognition of TRADEC as meeting the criteria of UVP, and therefore qualifying for funding support under the Pilot Programme. The submission was accepted, following clarification of points relating to the treatment of Social and Life Skills dimensions, and all schemes working to the TRADEC Stage 1 model and appropriately implemented were approved by the IDG from 1978. In the Yorkshire and Humberside region, TRADEC accounted for 90 per cent of UVP and by virtue of the difficulties experienced in reaching the Pilot Programme targets, for approximately 50 per cent of all UVP in England and Wales in the first four years of operation of the Pilot Programme. In the recent drive for expansion of UVP these proportions have fallen substantially.

17. Evidence of parties to the implementation of UVP/TRADEC, at all levels, suggests that the principal effect on TRADEC implementation of the UVP association occurred in the Social and Life Skills area. The scope for adequate treatment of SLS, integrated into a system centred, in its specification, on personal development of the participants, has always been inherent in the system. However, it is argued by many that the stimulus to good performance and good practice in these aspects of the scheme came with the UVP development, in which colleges were required to demonstrate, to a higher level of specificity than that required by the TRADEC system, the objectives, structures and content of SLS dimensions. The examination of SLS in this study revealed in many cases, a markedly greater emphasis on SLS at Stage 1 level qualifying for UVP funding than at subsequent stages.

18. The assessment features of the TRADEC system, which also distinguish it sharply from the 'standard' UVP models, have also been a focus of attention. It can be argued that the development and general acceptance of the wider philosophy of Vocational Preparation combined with the pressures of practitioners in colleges actively engaged in the implementation of the assessment systems with the client group, have been instrumental in producing the greater degree of flexibility introduced recently into some elements of assessment. * However, other assessment features remain at issue. The Steering Committee, also a required feature of UVP, was introduced for schemes qualifying for UVP funding support. These vary from course level committees to those operating at College level and in the case of Distribution and Consumer Trades Principles, at Regional level.

19. The introduction of the Distribution and Consumer Scheme in parallel with the UVP Pilot Programme and the DITB's substantial involvement in the support and promotion of the latter resulted in varying degrees of interaction between the two lines of development, with resultant influences on both. The DITB/UVP programme in Yorkshire and Humberside quickly began to link with the pilot TRADEC developmemt

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* See paras 477 - 480

in Yorkshire and Humberside on its introduction in 1977. UVP/DITB schemes managed by DITB, in which recruitment was undertaken by DITB, together with co-ordination and monitoring of incompany work, adopted college-based TRADEC as a replacement for the Business Game and supplemented the ½-day TRADEC with a ½-day programme in YMCA to build up the Social and Life Skills component, which was considered deficient in the TRADEC model. The full day release TRADEC scheme was subsequently supported by DITB which continued to undertake promotion, recruitment and support of the complementary incompany training provided by the employer.

20. On establishment of the DITB National Steering Committee for all DITB/UVP schemes, investigation of TRADEC as part of a national review produced criticisms of the scheme, which, it was considered, represented substantial departures from the philosophy and intention of DITB in its programmes for young people. (DITB 1980 :17). The principal points of departure were in approaches to assessment and in teaching and learning practices, which DITB considered to be insufficiently participative and client-centred for the nature of the intended target.

21. Following withdrawal of DITB recognition and funding support a Regional Steering Committee of practitioners from TRADEC schemes in Yorkshire and Humberside was convened, which agreed to establish the existence both of incompany programmes of planned experience and residential periods (neither of which are requirements of the TRADEC model) as features of good practice which should be maintained as extensions to the TRADEC model in the Distribution and Consumer area. Colleges gave their assent to this approach to the maintenance of TRADEC Distribution and Consumer schemes under the UVP umbrella, These additional features were clearly embodied in the direct submissions to the IDG following the breaking of the DITB link. The practical implications of this decision are discussed in Chapter 4.

22. Beyond the influences on 'balance', and some features of assessment and scheme 'steering', the original distinctive features of TRADEC have been maintained. Their efficacy and appropriateness relative to features of current developments has been outlined in TRADEC I, * and will be expanded in the following chapters.

REGIONAL MANAGEMENT STRUCTURE FOR THE DEVELOPMENT OF TRADEC SCHEMES.

23. The Yorkshire and Humberside Council for Further Education established, in 1979, an advisory 'Trades Principles Committee' and substructure to oversee the development of TRADEC, replacing the functions of the original Advisory Committee and Working Party. The committee structure currently under review, following the replacement of the Council by the Yorkshire and Humberside Association for Further and Higher Education, is represented in Fig. 1.2.

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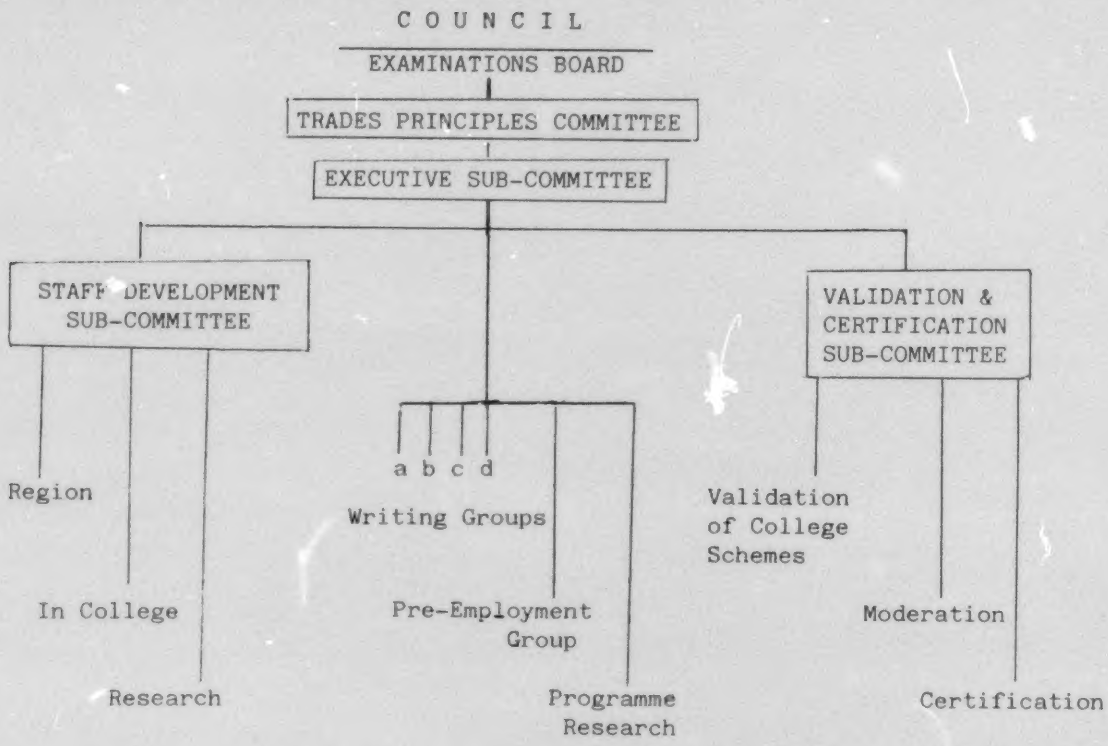
* TRADEC I (Paras 20 - 35)


COUNCIL
EXAMINATIONS BOARD
TRADES PRINCIPLES COMMITTEE
EXECUTIVE SUB-COMMITTEE
STAFF DEVELOPMENT SUB-COMMITTEE
VALIDATION & CERTIFICATION SUB-COMMITEE
Region
In College
Research
a b c d
Writing Groups
Pre-Employment Group
Programme Research
Validation of College Schemes
Moderation
Certification

24. The Validation and Certification Sub Committee is responsible for approving the initiation of schemes by colleges, appointing moderators and approving the issue of certification. A 'Course Development Sub-Committee' originally established to appoint and set out terms of reference of Writing Groups and authorise mounting of pilot schemes, has now been discontinued, some of its functions integrated into the formerly moribund Staff Development Sub-Committee. Other functions, in respect of overview of the work of the Writing Groups , have passed to the Trades Principles Executive Sub-Committee. The Scheme Writing Groups, together with ad hoc sub groups concerned with examination of possible applications of the TRADEC model to new client groups, are appointed by the Executive Committee, to which they report. The Writing Groups are suspended after completion of their writing task.

25. The Trades Principles Committee has comprised the following balance of interests (1979-82).

17	Members of Colleges of Further Education, Yorkshire and Humberside Region.
1	Representative of the Manpower Services Commission.
1	Representative of the Local Education Authorities.
1	Representative of 'Further Education Staffs'
1	'Staff Development' Representative.

1 Representative of 'Industry and Commerce'.

2 Assessors (Department of Education and Science, Department of Industry)

5 Observers (City and Guilds of London Institute, West Midland Advisory Council for Further Education, Northern Council for Further Education, Association for Liberal Education, Yorkshire and Humberside Association for Further and Higher Education).

The Writing Groups comprise, in membership, representatives of practitioners in the college, preferably from the range of occupational areas to which the scheme will be appropriate, and selected industrial and training board representatives. In practice, the participation of industrial representatives is largely nominal. This is particularly so at Writing Group level, with a few marked exceptions in instances where a large Company has perceived that it can make a major influence on a scheme which can directly and in the short term serve a substantial proportion of its staff.

26. Where RACs or individual colleges outside the Region wish to offer TRADEC schemes, the Yorkshire and Humberside Association acts both to assist and to control by ensuring awareness of requirements and methodology and by putting the college in touch with experienced support. It undertakes to moderate schemes and issue certificates, for appropriate fees, for a limited period following launching of the scheme, until such time as the appropriate regional body can provide the necessary administrative procedures. Participation in the writing of schemes, as in the case of NCFE, is welcomed. There is a particular concern that any body offering TRADEC and any RAC or recognised validating body supporting the system adheres closely to its structure and methodology. The openness of the system to change where change might be appropriate is an issue for later discussion.

THE TRADEC POPULATION AND ITS NEEDS.

27. The essential characteristics of the TRADEC population have been outlined in TRADEC I. The TRADEC system is based on the premise that workers in occupations not requiring multiple transferable skills but rather specialised skills 'not necessarily compounded of common elements of basic skills' need special opportunities. Their needs arise from the pressures to which they are subject in terms of rapidity with which their task can change as machines and processes change, their isolation within the workforce, their work identity and their perceptions of their own social value. Status through skills is not important, it is argued, to the typical worker in this category. What matters is a satisfying job and an acceptable life style. Work preparation which instils confidence and the capacity to adapt to change easily is a principal aim. There is now considerable support for this perspective among proponents of continuing education and training both in the UK and more widely.

28. The intended TRADEC population, to which the system is designed to respond, is characterised by a wide ability spread, and by functions highly differentiated in level, from supervisory or technician-type functions to those which are limited to process inspection or machine feeding. For example, in the Distribution and Consumer Area, sales assistants, warehousemen, checkout operators, and junior supervisors, would be examples of groups of workers falling into the intended target group of TRADEC.

29. The aims, fully stated, of the design and operation of the TRADEC system based on appraisals of the needs and circumstances of the target population, are as follows:

a) Overall aims

- i) to promote individual personal development in an through the current and changing work situation;
- ii) to develop self-learning abilities and the enjoyment of learning;
- iii) To promote a better understanding of the technology and relationships of the work situation and of the enjoyment of learning;
- iv) to maximise personal opportunity and job satisfaction;
- v) to enhance the learner's participation in contempory and future work situations and thereby increase his contribution to his or her employment and prospects;
- vi) to assist with and stimulate response to training and the growth of expertise;
- vii) to enhance educational and life-style opportunities for the individual.

b) Design aims:

- i) to make provision, through employment and further education, for categories of workers not being catered for;
- ii) to provide a learner-centred system capable of satisfying the needs of learners in a very wide range of jobs by any particular scheme;
- iii) to seek to apply a common design and methodology in schemes covering widely differing occupational bands or areas;
- iv) to secure schemes which materially assist industry and the individual, and are largely self-adjusting to technological change;
- v) to provide a practical working relationship between college and employer.

THE STRUCTURE AND OPERATION OF TRADEC SCHEMES.

30. The scheme structure, outlined in TRADEC I, requires more detailed examination and explanation. The structure of the TRADEC system and its component schemes was designed with the stated intention of providing 'substantial flexibility in operation and in actual content'. The uniform methodology or 'anatomy' adopted is intended to facilitate management, allow quality control and to rationalise staff development and administrative procedures. YHAFHE supports the case for maintenance

of a structure and method more highly specified than that found in Unified Vocational Preparation or initiatives introduced subsequently, with reference to the need for a scheme which is communicable to employers and to learners, and which also easily affords progression and continuity within and between occupational zones, by building and matching 'blocks' of learning.

31. The working basis adopted for definition of a scheme is the 'tree', representing the three stages of the scheme. Construction of the 'tree' is taken as the starting point by each writing group. The first task is the identification of the range of occupations which the scheme is intended to serve. The top of the tree is written to reflect this range, which is composed of occupational areas with broadly the same technological base in terms of materials, processes and methods 'over the widest possible spread.' Having identified the spread of occupational interest which characterise the divisions of Stage 3, Stage 2 divisions are established and between eight and ten units for each of Stages 2 and 3 are then devised from this base, for accommodation within the established divisions. The trees developed for a range of schemes are illustrated in Figures 1.3 to 1.6. The 'top' of tree for any given scheme, therefore, indicates the wide range of occupations for which that scheme is suitable. For example, Mechanical Trades Principles is intended to provide for workers performing mechanical tasks in operations, adjusting, feeding, cleaning and servicing machinery, or using and maintaining services and processes. The scheme is intended to serve not only those workers drawn from the engineering sector, but also those who may be in jobs such as food processing, textiles, line production, public services, and stock or materials handing, for whom an appreciation of Mechanical Principles their application is relevant and necessary.

32. The stages are intended to provide for a progression of interests and experience, not a progression from initial training to supervision. Learners moving through the stages should, according to the model, experience a wider range of relevant topics and more detail, rather than escalating academic difficulty. Their likely progression in comprehension, attitude and maturity rather than in academic level, or in abilities of various kinds are usually variables influencing selection for stages. It is expected that learners of limited ability, who are engaged in tasks of limited scope, might cover Stage 1 only. It is also intended that experienced learners wishing to enter the system in order to update and reorientate the skills to changing for demands should be able to enter Stages 2 or 3 if this is appropriate to their needs. The stages are therefore designed to be self-contained. The separation into divisions at stages 2 or 3 is designed to facilitate alignment of scheme to the needs of groups of comparable occupations. The system can, if required, accommodate hybrid combinations of stages or part stages between schemes to meet individual needs.

33. Each stage and division contain a number of units which describe the content of the scheme. The structure of the unit is an array comprising 5 columns and a number of lines usually varying in number between 3 and 8. The lines a - e are described as 'containing carefully chosen and modulated technical topics expressed as learning parameters! The columns are described as 'indicating the objectives of each part of the content'.

Fig. 1.3 Powered Traction Trades Principles (Engineering zone)

STAGE 3	Personalised Traction	Commercial & Bulk Traction	Agricultural & Construction Plant Traction	Industrial Traction

STAGE 2	Road Vehicles	Special Traction

STAGE 1	Materials, Fastenings & Adhesives	Basic Workshop Processes	Fuels & Lubricants	Elementary Electrics	Principles of Power Production	Principles of Transmission	Principles of Suspension & Steering	Principles of Braking	Body Construction Principles	Servicing & Recovery Processes

Fig. 1.4 Distribution & Consumer Trades Principles (Business zone)

STAGE 3	Manufacture and Distribution	Wholesaling and Distribution	Retailing Perishables	Retailing Non-Perishables	Retailing Services

STAGE 2	All Trades

STAGE 3	Communications	Relationships at Work	Selling	Stock	Money	Security	Health, Hygiene & Safety	Aspects of Distribution

Fig. 1.5 Food Trades Principles (Business zone)

<table>
<tr><td>STAGE 3</td><td colspan="4">Supply Industry
Manufacture & Processing</td><td colspan="5">Preparation & Provision
Sales & Service</td></tr>
<tr><td>STAGE 2</td><td colspan="4">Supply, Manufacture & Processing</td><td colspan="5">Preparation, Provision, Sales & Service</td></tr>
<tr><td>STAGE 1</td><td>Hygiene & Protection</td><td>Materials & Supplies</td><td>Handling & Storage</td><td>Processing & Preparation</td><td>Sales & Service</td><td>Money</td><td>Customer Relations</td><td>Work & the Law</td><td>Safety at Work</td></tr>
</table>

Fig. 1.6 Health & Welfare Trades Principles (Caring Occupations zone)

<table>
<tr><td>STAGE 3</td><td colspan="5">HEALTH SERVICES</td><td colspan="5">WELFARE SERVICES</td></tr>
<tr><td>STAGE 2</td><td colspan="5">HEALTH SERVICES</td><td colspan="5">WELFARE SERVICES</td></tr>
<tr><td>STAGE 1</td><td>Communications (inc. Documentation)</td><td>Health & Hygiene</td><td>Service-Users (Needs and Circumstances)</td><td>Hospital & Health-Care Services</td><td>Rehabilitation & After-Care</td><td>Social, Welfare & Voluntary Services</td><td>Social Care & Control</td><td>Safety & Protection</td><td>Organisation & Resources</td><td>Money, Work and the Law</td></tr>
</table>

a					
b					
c					
d					
e					

Column E requires a 'basic concept' explanation to be given for each 'topic' line. This involves explanation of why the topic is being done and the significance of the information for the learner. The guidelines state that there should be 'a short address' and that the explanation given might be adapted according to the occupational background of the group.

Column A Group Instructional Practice is an 'information element' i.e. a presentation of simple factual information 'preferably by hand out and not by lecturing and dictation, and, again, adapted to specific occupational interests of the group.

Column B is supplementary study, i.e., terminology, science, calculations, explanation. The 'objective' indicated is that of enabling the information to be understood. The recommended method of operation is that these should accompany the information element and not be extracted to form a separate subject of instruction, and that they should be presented in a 'non rigorous manner' in the context of learners interest.

Column C is 'the operational outlines' element. The objective indicated is consolidation and comprehension through the selective use of simple tests, observations, experiment, handling and demonstration.

Column D represents the project element. It is intended, as far as possible, that the project element should be undertaken by groups rather than individually. Five or six minor projects and one major project must be done at each stage. The major project, at least, it is required, must be chosen and its objectives identified co-operatively between the college, learner, and employer and should be a task related to the working situation.

34. The project element of the scheme is described as embodying the main learning and an involvement function of the scheme. It is seen as one of the means by which matching can be achieved to the individual's work situation and special requirements and is intended to be 'wholly or partly carried out at the workplace,' with the involvement of company personnel, wherever possible. Projects can incorporate or complement job training or be designed to improve particular abilities e.g., numeric ability. The

projects. which are written up for assessment should produce 'a practical and useful result' although it is stressed that they do not necessarily have to be a manufacturing exercise or process operations. The intended objectives, implicit in the model and scheme specifications, include those of developing practical skills as well as including those of literacy and numeracy, a variety of life and social skills objectives and achievement of 'acceptable standards of performance and reliability'.

> 'Every project should be designed to include aspects of life and social skills, showing that personal behaviour, honesty, dependability, self-reliance and enthusiasm are essential and gratifying qualities. The achievement of acceptable standards of performance and reliability, and attitudes of personal commitment and responsibility, are appropriate objectives and ingredients of project work and should be pursued throughout the TRADEC partnership.'
>
> (YHAFHE 1982: 22)

35. The other means of achieving alignment within a scheme are through
(i) the relative emphasis given to individual units and topics.
(ii) the division of Stages 2 and 3
(iii) use of employers plant processes and equipment in information consolidation and project work.

Coverage of the Information and Supporting Studies elements of each unit is a requirement of the scheme. Beyond that, Operational Outlines and project work may be drawn from particular units to emphasise the topics of greatest relevance to the learner and his employer.

36. The recommended method of operation for colleges is to treat the content of any one line such that the BASIC CONCEPT is introduced initially followed by the INFORMATION ELEMENT and integrated SUPPORTING STUDIES. OPERATIONAL OUTLINES follow, leading into PROJECT WORK, where the topic is one selected for more detailed and specialised treatment. The YHAFHE guidelines for 'Starting & Operating a TRADEC Scheme',* for the treatment of 'Social and Life Skills in TRADEC courses' and for course management by scheme, produced for use by colleges introducing schemes, seek to stress to practitioners, the flexibility of content within a mode of operation which 'preserves the structure and presentation'. In particular, the maintenance of the 'structural links' between Basic Concept, Supporting Studies, Group Instructional Practice and Operational Outlines in any reorganisation, is required. This is an important point to be considered in the context of the substantial 'reorganisations', on implementation, undertaken by many departments, particularly in the Business Zone Schemes. The scheme intends, but does not require, that the employers' plant, processes and equipment are used for information and consolidation throughout the scheme.

37. The mode of learning is flexible. The specific length of time in hours is not specified. In TRADEC schemes, stages currently offered range from 11 weeks - 35 weeks. They involve a variety of patterns of learning, including combinations of block attendance, ½ day

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* YHAFHE unpublished Committee Draft at time of writing

release and full day release modes for College based elements, accompanied by varying degrees of company based activity and in some cases by residential elements and formalised company-based programmes. The total time to be spent in covering the scheme is considered to be the sum of that spent in college and on the job, and is determined by the needs of individual groups of learners and their employers. The basis for this degree of flexibility is that the scheme if it is to attract the participation of the former non participants, particularly in industries and companies with little experience of traditional day release, must justify itself as practicable for employers. There is no control or definition of minimum levels of operation. There is an assumption that in practice schemes will converge on a band of operation considered reasonable and acceptable to all parties to the process.

> 'It is likely that organizational consideration and emerging experience and agreement with the employers in similar businesses will result in 'sensibly limited variation' in operating conditions.' (YHAFHE 1982:)

Since assessment is not standards-based, it is argued, it is both feasible and acceptable for programmes of learning leading to completion of individual stages, to vary in length and intensity not only by type of scheme but also within schemes. This clearly raises questions both about progression between Stages and about the appropriateness of the form of certification, discussed in Chapter 8.

TREATMENT OF SOCIAL AND LIFE SKILLS

38. The TRADEC system claims to be centred on the principle of whole person development and subscribes to the now widely accepted view of the interactional nature of personal,social and vocational development, (FEU 1978: 7)

The general aims of Social and Life Skills in TRADEC schems are presented as follows:-

a) To identify for learners the variety of contexts in which they live and operate as workers, as individuals, and as members of social groups;

b) to provide learners with an understanding of these contexts and of the problems of operating within them;

c) to enable learners to aquire the knowledge, skills and understanding to operate within these contexts;

d) to equip learners with understanding and abilities which will enable them to adapt to change;

and more particularly to engender an awareness of:-

e) the wider aspects of learners' employment in such matters as the overall structure, organisation and objectives; the technology employed; costs; customers; competition; projected developments;

f) people within the work situation, e.g, the management structure; functional responsibilities; 'who does what, why, and how they relate to each other'.

g) the learners' own roles, attitudes and contribution to the enterprise, coupled with an understanding of the fact of and need for change both in local and wider contexts; the learners capacity to adapt and to enhance their contribution to and satisfaction from work;

h) the need for specific skills in working and in living, e.g., in communication; in numbers; in managing personal money; where to go for help or information; skills in learning and adapting to change; in developing personal interests and an understanding of individual social and civic responsibilities.

39. The stance of YHAFHE on the treatment of SLS in TRADEC schemes is essentially non-prescriptive. Within the given aims and the general principles of integration, decisions on content and emphasis are matters for the individual college:

> 'the only prescriptions are that education in life and social skills forms an integral part of TRADEC schemes, and that the whole purpose of TRADEC is to meet perceived needs' (YHCFE nd.,3)

More specifically, it is required

> 'that all the projects used should be related to personal and inter-personal skills, that corporate and social effects of work should be illustrated, that reading and individual enquiry should be stimulated and that the applicability of skills.......... to personal interest should be constantly revealed'. (YHAFHE 1982: 27)

The prescribed principle of integration, however, does not exclude the treatment of some aspects of SLS independently of technical topics where necessary. The only recommendation in respect of the approach to SLS other than its integration and the desirability of joint staffing to achieve this, is that it should be responsive to the identification of individual need and developed in accordance with the principles and 'spirit' of TRADEC.

40. The importance of identification and monitoring of the elements which constitute SLS is also stressed. In separate elements it is stated that 'it is important that learners themselves should be able to identify and monitor their own progress'. Where SLS is integrated with the technical content, then its assessment should be integrated into the assessment approaches designed for the various scheme components.

ASSESSMENT AND CERTIFICATION

41. The assessment system in TRADEC schemes has been the most controversial feature of its operation. The assessment procedures are based on a number of claims, from practitioner experience, concerning the preferences of the learners in the target population for some form of assessment and certification, and of the employers for an assessment which is easily translated into their terms.

> '......most learners, including those who found examination processes difficult or unacceptable at school, prefer some form of assessment and certification'.
>
> 'Employers appreciate an assessment which is understandable, brief, and easily related to factors with which they are familiar.' (YHAFHE 1982: 30)

42. The principles of operation of the assessment system require that assessment should accrue from the normal process of operation of the scheme and should not require an additional and separate procedure; that a moderating procedure should be used which allows all colleges to participate and which aims to secure mutually acceptable assessment procedures by comparing methods and projects; that learner and employer involvement in suitable parts of assessment should be obtained in order to ensure their understanding of results; that the certificate states clearly what has been done, provides a simple objective statement about accomplishment, implies levels of success rather than failure, and is generally applicable to any occupational zone; and that the procedure is compatible with varying scheme durations and completion times, and does not impose the conventional constraints in the event of illness and repetition.

43. Assessment comprises the following elements:

Continuous Assessment:- of elements of work undertaken throughout the scheme.

Practical Work Projects:- the assessment of a range of minor projects.

The Principal Projects:- involving the assessment of the main project and the related written report, coupled with an oral assessment in which an industrial assessor is a necessary participant.

Theoretical and Related Knowledge:- It is a requirement that the body of knowledge linked with each TRADEC scheme is separately assessed, in a way which requires written responses from the learner.

44. The role of the moderator is principally to ensure that the scheme adheres, in implementation, to the TRADEC methodology. It is not to standardise assessments, since any standards set and measured are specific to individual schemes and their participants. The moderator system as a whole, however, aims 'to secure an appreciation, of standards levels and operation appropriate to similar circumstances.

The moderators are required to:-

a) monitor the conduct of courses, with particular reference to key features of methodology e.g, employer involvement,

b) monitor assessment and examining processes to ensure that 'good examination practice' is observed.

c) act as advisor and 'mentor' to those centres in which TRADEC is introduced for the first time.

Gradings are submitted for each scheme according to a set of criteria introduced by YHCFE in 1980/81*

SYSTEM SUPPORT AND STAFF DEVELOPMENT

45. The distinctive features of the system's operation place special demands on the institutions and staff engaged in the schemes. The partnership principle, closely associated with the translation of the structure into practice, is dependent upon effective and continuing liaison with the Course Tutor, or in some cases, a coordinator with an overview of the marketing and implementation of the scheme. The approaches recommended by YHCFE for securing employer commitment and involvement incorporate exhortations college staff (a) to determine local industrial needs and to develop knowledge of the nature of individual employers' business and their likely requirements before making direct personal approaches for recruitment purposes, and (b) actively to pursue employer involvement in project work, industrial assessment and Course Committees.

46. The methods and styles of teaching and learning described require a command of, and expertise in, non-traditional modes of operation from the practitioners implementing them, if they are to be fully effective in practice. This the schemes hold in common with other Vocational Preparation developments based on various types of client-centred and participative approaches.

47. Areas of pressing need for staff development are seen as:-

- marketing and initial employer relations
- planning and establishing the organisational base within the college
- preparation and presentation of material, including the design and conduct of project work.
- assessment and moderation

The range of support services arranged by YHAFHE and currently in operation include publication of scheme booklets, guidance notes and manuals, appointment and development of moderators with a support function, and a limited range of staff seminars and workshops.
While a considerable amount of exchange takes place informally outside this YHAFHE framework of support services, by virtue of the close network of college relationships which characterise the region, there is no provision, at the time of writing, of a more formalised network which seeks to identify and respond to needs systematically within and between the colleges. Experimental activities in the development of

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* See para 426

this type of network for UVP/TRADEC and related developments, launched several years ago, were not advanced.

48. The absence of a systematic staff development strategy to support implementation is recognised by YHAFHE, which is seeking to develop a system adequate to meet the demands and to ensure that divergence of the system from its intended operation and performance, tending to occur as new and inexperienced colleges enter the system and existing support networks become overstretched, is reduced. This support function will be extended in the context of the Association's recently adopted functions in respect of the 'franchise' for all college-based UVP in the Yorkshire and Humberside Region.

PROPOSED APPLICATIONS OF THE TRADEC MODEL

49. The 'Principles and Practice' statement claims that 'any learning system which is successful with the quoted target population when in employment, must be of value to the same population in other circumstances because it employs learning methods which appear to motivate that type of learner!   (YHAFHE 1982: 35)

While it can be argued that a scheme which is successful in terms of the learner motivation which it generates is likely to be of value to similar learners in other contexts, the extent of the value which may be derived will undoubtedly rest on the extent to which the key motivating factors are present in the new circumstances. For example if success in motivating a learner is based largely on the direct transferability of learning to its point of application, that point of application being the participants' chosen job to which he is committed and in which he wishes to develop, then the key motivating factor may be absent in circumstances in which application to the point of interest and commitment is not possible. Similarly in a context in which the key motivating factor is the employers' encouragement, support and supervision, given because a scheme is directly meeting his requirements, [illegible] the key motivating factor may be absent in circumstances in which the employer 'pay/off' is not immediately apparent.

50. However, on this premise, applications of the TRADEC model in integrated programmes involving work experience, in Community Enterprise and other projects for the unemployed, and in school and college-trained prevocational courses for pre-16 and post-16 learners, are argued by TRADEC proponets to be appropriate and potentially successful.

51. In the Work Experience field, the standard TRADEC schemes have, in the period of recession, attracted an increasing proportion of WEEPs participants. One college has offered TRADEC in 4 week blocks with work experience periods for schemes sponsored by local training associations and employers. YHAFHE claim that the TRADEC schemes 'appear to be the only suitable systematic provision available' and argue that if college and employer in partnership plan the work experience, and give the recipient a bona fide development experience on which the TRADEC scheme can focus in order to be a vehicle for that development, then the outcome can be a successful one. While this is

probably the case, a question lies over the realism of this, on the basis of experience of obtaining employer involvement and commitment in respect of full employees both in TRADEC, in UVP schemes run on different models and in the operation of WEEP schemes under YOP. However, the introduction of NTI and uncertainty about the effectiveness of employer incentives and mechanisms to maintain quality commends this possible application as one to be watched.*

52. In respect of Community Enterprise, YHAFHE suggests that following a TRADEC scheme in parallel with free standing projects can provide not only opportunities for systematic and planned development over the period of the enterprise, but a useful qualification at the end together with the possibility of progression within or from the TRADEC system subsequently. The limited training component in Community Enterprise again renders these applications worth examination. Experience in the implementation of TRADEC with adult groups remains very limited, and any judgements concerning its efficacy with older age bands must necessarily be provisional.

53. In the case of 'Basis for Choice' prevocational courses, the suggestion that TRADEC might provide the vocational elements of ABC is under examination. The features of the TRADEC target group, its practical base without commitment of the learner to specialisations, and its teaching-learning approaches render it appropriately considered in terms of its contribution to the ABC development. The applications of the model exemplified in the pilot experiments undertaken cooperatively with schools in 1979/80 are now more appropriately considered in the context of the prevocational development as likely to be implemented in schools, and its implications for programmes for those in the final year of compulsory schooling.

54. The extent to which the TRADEC system is able to meet ABC criteria, and to serve the needs of pre-16s in these changing circumstances, is reviewed in Chapter 11.

55. This chapter has served to elaborate the key features of the TRADEC system Succeeding chapters seek to examine, on the basis of evidence obtained, the implementation of schemes, in order to compare actual system performance both with that intended, and that achieved by other modes, and to comment on the potential of the system to meet the needs and reach the populations it intends to serve.

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* See TRADEC I,, para. 10

TABLE 1.1

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES 81/82	ORGANISATION OF LEARNING
			80/81	81/82			
COLLEGE A MECHANICAL	STAGE 1		19	-	Machine Operators	11	36 weeks day-release
	STAGE 2	1980/81	17	10	Apprentice Fitters & Turners		
	STAGE 3	Case Study 1981/82	13	11	Production Trainees in Mechanical Trades		Small proportion undertake major project in the company.
COLLEGE A FABRICATION & JOINING	STAGE 1		26	11	Apprentice Plater/ Welder	5 NCB Manufacturers of mining equipment small steel fabrication companies.	36 weeks day-release Company-based work as above.
COLLEGE A FOOD	STAGE 1	1981/82	10	7	Trainee Supervisors Tea Attendants Waitress Hotel Receptionist Fish Fryer Sales Assistants	5	Day release for 18 weeks. One third of major project undertaken within the company under their supervision. About 1½ hours per week.
COLLEGE B MECHANICAL	STAGE 1	Pilot Survey 1980/81	12	15	Apprentices and Probation trainees e.g. Turners Grinders Fitters & Machinists maintenance	21 Mainly small manufacturers eg. Lighting Nuts & Bolts Printing & engraving etc.	35 weeks day-release. Project work undertaken entirely within the Company.
	STAGE 2		21	9			
	STAGE 3		16	12			
COLLEGE B FABRICATION & JOINING	STAGE 1	1980/81	31	29	Apprentice and Sheet Metal Workers	27 Mainly small & medium sized metal works.	35 weeks day-release. Relatively little company-based work. (In contrast with the MTP scheme in which a company-based major project was considered essential.
	STAGE 2		26	11			
	STAGE 3		14	19			

TABLE 1.1.

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES 81/82	ORGANISATION OF LEARNING
			80/81	81/82			
COLLEGE C MECHANICAL	STAGE 1	-	13	9	Apprentice Fitters Machinists Setter/Operators	20 Mainly small and medium manufacturing companies miscellaneous	34 weeks day-release. Residential element introduced 1981/82 Company-based element (small) based on projects/assignments carried out on an ad hoc basis.
	STAGE 2			10	Toolmakers		
	STAGE 3			14	Maintenance Apprentices		
COLLEGE C FABRICATION & JOINING	STAGE 1		28	13	Apprentice sheetmetal workers	27	34 weeks day-release Residential element introduced 1981/82. Company-based element (small) based on projects/assignments arranged on ad hoc basis with some employers.
	STAGE 2	1980/81 Case study	20	20	Plater/Welders Panel Beaters		
	STAGE 3	1981/82	21	16	Blacksmiths		
COLLEGE C DISTRIBUTION & CONSUMER	STAGE 1	-	12	16	Sales Assistants Warehouse assistance Clerks	5 Small retailing establishments	13 weeks day-release Residential element of one week 18 days company-based activities. 12 weeks day-release.
COLLEGE D DISTRIBUTION & CONSUMER	STAGE 1		-	12	Sales Assistants Trainee Managers	11 Many small retailing establishments.	12 weeks day-release. Company-based element arranged on an ad hoc basis with some willing employers. Release back to company or college day, sometimes adopted for specific company-based activities.
	STAGE 2	1981/82	-	11	Warehouse Assistants General Assistant		
	STAGE 3	1980/81	3	-	Clerical Workers		

TABLE 1.1.

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES 81/82	ORGANISATION OF LEARNING
			80/81	81/82			
COLLEGE E MECHANICAL	STAGE 1	-	12	7	Apprentice Engineers Machinists Maintenance Engineers Toolmakers, turners etc. Operatives	17 Mainly small and medium manufacturing. Miscellaneous	36 weeks day-release Proportion of project/assignment work undertaken in company.
	STAGE 2		10	9			
	STAGE 3		11	9			
COLLEGE E FABRICATION & JOINING	STAGE 1	1981/82	12	8	Apprentice Welders Sheet Metal Workers and Platers etc.	12 Small light and heavy fabrication companies.	36 weeks day-release. Fifty per cent of major projects undertaken in company, and a substantial proportion of assignment work. Time set aside by company in exceptional cases, where the project involved development of product for use for the Company.
	STAGE 2		9	-			
	STAGE 3		9	8			
COLLEGE E DISTRIBUTION & CONSUMER	STAGE 1	1980/81	31	20	Sales Assistants Clerks Checkout Operators Machinists	6+ Mainly large companies	18 weeks day-release. One week full-time at beginning Residential included in some schemes. Also block-release model. Set work involving surveys, investigations, etc., designed to be undertaken in the Company, requiring approximately one day per week. The work is not supervised in the Company but brought back to the college. Release back to the company or the college; day used periodically for company-based activities.
	STAGE 2		8	9			
COLLEGE E COMMERCIAL	STAGE 1	1980/81	10	9	Office Juniors General Apprentices Receptionists Shop Assistants	8 Mix of small medium and large manufacturing & retailing companies.	Full day-release of 20 weeks. All projects are company-based. Time allocation by companies variable but organised mostly on an ad hoc basis. Company staff responsible for supervision.
COLLEGE E FOOD	STAGE 1	1980/81	11	-	Apprentice Butchers		As DCTP.
COLLEGE F DISTRIBUTION & CONSUMER	STAGE 1		103	90	Sales Assistants Management trainees Warehouse Assistants	18	12 days and residential week Stage 1 12 days Stage 2 (normally following Stage 1 end-on) 24 days (2 X 12) for Stage 3. [Also runs 13 week short courses 4 weeks college, 2 weeks training centre and 7 weeks experience] No company-based element in the majority of cases. Although a proportion of employers undertake to offer job rotation, this rarely materialised. In a few cases existing company based training based on rotation operates in parallel with TRADEC but is not linked to the TRADEC programme.
	STAGE 2	1980/81 Case Study	44	65			
	STAGE 3	1981/82	10(?)	25			

TABLE 1.1

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES 81/82	ORGANISATION OF LEARNING
			80/81	81/82			
COLLEGE G							Day release 33 weeks
	STAGE 1		52	35	Production trainees Setter/operators	28 Many large manufacturing companies. Tools, Wire Products, etc	Little company-based work within scheme. One major subscriber (Sheffield Twist Drill) completely altered the Company training schemes to complement TRADEC, to rotation round department in the first year, on production but with training in This is exceptional.
MECHANICAL	STAGE 2		61	39	Apprentice Fitters/ Turner Toolmaker		
	STAGE 3		37	37	Cutters/Grinders/ Millers Machinists		
COLLEGE G						22 Mix of small medium and large abrication companies.	Day release 33 weeks. Company-based, as above
FABRICATION & JOINING	STAGE 1		12	30	Apprentice Welders/ Sheet Metal Workers/ Platers		
	STAGE 2	-	16	-	Blacksmiths/Fitters		
	STAGE 3		15	15			
COLLEGE G							Day release 33 weeks. Limited amount of company-based activity in connection with properly arranged on an ad hoc basis. Release back to the Company on the College day and periodically for company-based activities.
	STAGE 1	1980/81	16	13	Clerk Typist Junior Clerks Invoice Typists	16	
COMMERCIAL							
	STAGE 2	1981/82	-	14	(Predominantly WEEPs Trainees at Stage I)		

TABLE 1.1

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES	ORGANISATION OF LEARNING
			80/81	81/82		81/82	
COLLEGE H MECHANICAL	STAGE 1	1980/81	2	6	Apprentice Fitters Machinists	12 Mix of large medium and small manufacturers in glass bottles, training manufacturers, general, oil & mining engineering.	36 weeks day-release Residential week 'usually'. Little company-based work; undertaken very occasionally for major project.
	STAGE 2		14	13	Trainee Operators		
	STAGE 3		6	13			
COLLEGE H DISTRIBUTION & CONSUMER	STAGE 1	-	-	11	Warehouse Operators Sales Assistants General Assistants	7 Mainly large companies.	12 weeks day-relase. Residential week. Company-based work, continuously assessed.
COLLEGE J MECHANICAL	STAGE 1	1980/81	11	-	Wire Rope Operators Workers in Plastics	2 Large company.	35 weeks day-release. One week residential and one weekend residential (end of scheme) Major project completed by each individual student at work, under the guidance of an industrial tutor, assigned by the Company.
COLLEGE J DISTRIBUTION & CONSUMER	STAGE 1	1980/81 Pilot survey only	6	12	Sales Assistants	10 Mix of medium and small retailing establishments.	12 weeks day-release. One week residential Company-based projects arranged on an ad hoc basis.
	STAGE 2		-	10			
COLLEGE K DISTRIBUTION & CONSUMER	STAGE 1	1981/82	25	8	Sales Assistants Clerks Butchery Assistant Warehouses	7 Mix of small medium and large retailing establishments.	13 weeks: Day-release for 12 weeks, one week residential No company-based element in most cases. In one exceptional case job rotation programme was implemented by a company. [Intended minimum of two days per week].

TABLE 1.1.

COLLEGE / SCHEME	ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO, OF COMPANIES 81/82	ORGANISATION OF LEARNING
		80/81	81/82			
COLLEGE L MECHANICAL STAGE 1	-	18	10	Semi skilled operators Apprentice fitter/ turners Production trainees Labourer	10 Small, general fabrication "Hydraulic" Engineers, e.g. Tanner, Pig Breeder.	36 weeks day-release. No company-based as a matter of 'policy all projects undertaken in College under the supervision of College staff.
COLLEGE L FABRICATION & JOINING STAGE 1	1980/1981	20	15	Apprentice fabricators sheet metal welders, welders, platers.	25 Many small sheet metal working "general" engineering companies.	36 weeks day-release. No company-based element, as above.
STAGE 2		18	16			
COLLEGE M MECHANICAL STAGE 2	1980/81	11	-	Wire drawing operators Production trainees	Mainly large manufacturing.	36 weeks day-release. One week residential (Stage 1) No company-based work currently takes place only as an exception, if work requires special machinery.
STAGE 3		10	8		5	
COLLEGE N DISTRIBUTION & CONSUMER STAGE 1	-	-	14	Sales & Warehouse assistants	9 Mix of small medium and large retailing companies.	12 weeks day-release. One week residential Company-based project work, on an ad hoc basis. Job rotation in exceptional cases.

TABLE 1.1

COLLEGE / SCHEME		ACADEMIC YEAR OF SURVEY	NUMBER OF PARTICIPANTS		OCCUPATIONAL CHARACTERISTICS OF PARTICIPANTS	NO. OF COMPANIES 81/82	ORGANISATION OF LEARNING
			80/81	81/82			
COLLEGE P							
DISTRIBUTION	STAGE 1	1981/82	7	25	Sales Assistants	14 Small shops and supermarkets/ multiple stores	12 days (day release) Company-based work arranged on an ad hoc basis
	STAGE 2	-	-	9			
COLLEGE R							
FABRICATION & JOINING	STAGE 1	-	-	8	Fabrication Apprentices	4 One large standard engineering company manufacturing in sheet metal and scaffolding.	36 weeks day-release Company-based projects arranged on an ad hoc basis
COLLEGE S							
FABRICATION & JOINING	STAGE 1	1981/82	-	11	Welders/ Fabricators/ Machinists/ Panel Beaters	9 Small general agricultural and motor engineering	36 weeks day-release Seven days residential element No company-based element

TABLE 1.2

Colleges which have operated schemes to 1981/82, in Scotland

DUNDEE College of Commerce	-Distribution and Consumer Trades Principles 1
ESK VALLEY College	-Mechanical Trades Principles 1 -Fabrication and Joining Trades Principles 1, 2. -Distribution and Consumer Trades Principles 1
LAUDER Technical College	-Mechanical Trades Principles 1,2 -Fabrication and Joining Trades Principles 1,2.
TELFORD College of Further Education	-Fabrication and Joining Trades Principles 1

CHAPTER 2: INITIATING AND MAINTAINING A TRADEC SCHEME

CONDITIONS SUPPORTING THE INTRODUCTION OF TRADEC

56. The distribution of TRADEC schemes in colleges both in and beyond the Yorkshire and Humberside area has occurred partly by design, and partly by the interplay of local and institutional factors. There has been, in Yorkshire and Humberside, an attempt to achieve some degree of co-ordination and planning in the location of schemes, in order to avoid problems of competition for the same population of students. Planning can, however, take place only in respect of those colleges choosing to enter the TRADEC system.

57. A range of factors seem to be important in determining a college's involvement. Frequently, entry to the system is prompted by falling students numbers in the traditional areas of provision. A climate of 'openness' to innovation also favours the introduction of TRADEC, linked, of course, with the support of the Principal and/or Head of Department, both in spirit and in the more tangible forms of reward for good performance in the schemes, and of flexible working arrangements or remission for Course Tutors engaged heavily in liaison and administrative duties. TRADEC is part of a band of provision marked by 'low status' in Burnham gradings, (Burnham Category V): In colleges and departments engaged in that upgrading process often termed 'Academic Drift' (Pratt & Burgess, 1970) conditions tend to be unfavourable for entry into the TRADEC system, or for expansion of established involvement in the TRADEC system. Also important in allowing TRADEC to take hold is the existence of the target client population in the locality, in sufficient numbers to ensure continuing viability of a scheme without excessive recruitment activity (although a high level of recruitment activity is required for most schemes).

ENTERING THE TRADEC SYSTEM

58. A college wishing to enter the TRADEC scheme is required to register its intention with YHAFHE, at least six months in advance of the intended starting date. Steps are taken to ensure that the department/organiser is fully aware of the 'conditions of operation' of the scheme, involving, in some cases, a lengthy process of discussion and information exchange. Approval, if appropriate, is given by a Validation and Certification Panel. Moderators are appointed to support and advise on translation of the scheme into practice. The YHAFHE Guidelines 'Starting and Operating a TRADEC Scheme' (YHAFHE 1982) assert that the success of the operation is largely dependent on the careful selection of staff by criteria required for effective performance in the fundamental features of the scheme, e.g., marketing ability, knowledge of local industry, management ability.

STAFFING

59. The 'Course Tutor' of the scheme usually carries responsibility for co-ordination of the staff team and for implementation of the scheme

design, including recruitment, liaison and assessment activities. The course teams vary considerably, some forming cohesive groups, operating interdepartmentally in some instances. In others, the Course Tutor is the link person between a number of staff contributing periodically but with little sense of team operation. Between these two lies the team operating departmentally, with those contributing from other departments, (e.g, General Studies) remaining on the periphery and seeing themselves as servicing the course rather than as full team members. Staffing 'policy' also varies considerably in terms other than that of grade of appointment. In some colleges every effort is made to staff the scheme with the enthusiasts and those committed to the approach and client group. In others, spaces in the timetable dictate the course team membership. The levels of staffing for the schemes surveyed are shown in Table 2.1. The pattern of gradings tends to be higher than that which would be expected for the Burnham Level of the course. It is the view of many Principals and Heads of Departments in the participating colleges, that the special features of the scheme, particularly the liaison and methodological features, and the roles and responsibilities assigned to the Course Tutor, in particular, makes necessary a more highly graded staffing complement than would normally be indicated by the Burnham Gradings. It is in this area that the Principal's support is a key factor in effective operation, although there are many schemes which have achieved successful operation with the balance of staffing usual for courses graded at this level.

60. Most departments, on implementing a new scheme, claim to adhere closely to the YHAFHE syllabi and guidelines. In some cases it would seem that the claimed adherence is based on misconception concerning the intentions and use of the printed schemes. The tendency to follow the printed schemes as syllabi in set format, rather than as flexible frameworks as the YHAFHE guidelines suggest is a recurrent problem, to be discussed further in Chapters 4-6. However, it is clear that for many practitioners, the printed scheme is sufficiently concrete to provide a 'half-way house' for the practitioner unable to relate readily to the openness of, for example, a UVP scheme specification. The close initial translation of the array into the actual course programme and timetable is frequently adapted very soon after launching, when more experience of implementation has been gained, particularly in the 'non-engineering' areas.*

61. Recruitment to a scheme is, in most cases, dependent upon the effectiveness with which it can be sold to employers. In any scheme intended for the 'traditional FE non-participant', securing the participation of the client group presents a major hurdle. Successful recruitment of a viable group is, of course, crucial to the launching of any new TRADEC scheme, and it is frequently at this point that schemes founder. The 'viability size' of a TRADEC group is determined by the Head of Department/Principal. This is another area in which the attitudes to the initiative held by the college hierarchy can facilitate or impede the introduction of the scheme. Some Principals will allow schemes to run with a group of 6 or 7 students or even less in its pilot stages. Others will expect a group of a minimum size of 10. These schemes which fail to meet the UVP viability levels are frequently run despite the absence of UVP funding support.

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* See Chapter 10

TABLE 2.1: STAFF TEAMS ENGAGED IN SURVEYED SCHEMES*

	COLLEGE	Stages operating In year of survey	Staff** (Where the team is drawn from)
Mechanical Trades Principles	A	1,2,3	3LI, 1LII(Engineering) 3LI (gs)
	G	1,2,3	5LI, 2LII, 1SL (Engineering) 1LII, 1SL (gs)
	H	1,2,3	3LI, 2LII, 1SL
	J	1	2LI, 1LII, 1 Training Officer
	M	3	
Fabrication and Joining Trades Principles	B	1,2,3	5LI, 1SL (Engineering) 1LII (gs)
	C	1,2,3	6LI (Engineering) 1LII, 3LI (General Education)
	E	1,3	1LII, 2LI
	L	1,2	1LII, 3LI
	S	1	3LI
Distribution and Consumer Trades Principles	D	3	2LII
	E	1,2	1SL, 4LII
	F	1,2,3	2LII, 1LI
	K	1	1LI, 1 Training Officer (KITB) 1 YMCA Youth Tutor
	P	1,2	1SL, 2LII
Commercial Trades Principles	E	1	1LII, 2LI
	G	1,2	1LII, 1LI (Business Studies) 1LII (GS)
Food Trades Principles	A	1	1LI, 1LII, 2 Visiting Lecturers
	E	1	1LI, 3LII, 1SL

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* Based on returns from Course Tutors in the year of survey; 1980/81 for some schemes, 1981/82 for others.

** Where the team is drawn from more than one Department, the Departments are indicated.

62. Similar recruitment strategies can be found among those schemes which have been successful in becoming operational, although there is a considerable variation in the degree of recruitment effort which has to be put in, both between types of scheme and between localities. Most have attempted three types of approach, built onto existing industrial links of the Department. These are

(a) mailing of course leaflets

(b) visits to companies, identified initially through Yellow Pages in many cases

(c) open days and other meetings for company personnel.

In some cases e.g. College F and College G, working through the local Training Associations has also been used as a means of recruitment. The outcomes of these approaches have been predictable. Mail-shots produced few recruits, company visits produced a larger, but still very limited, number of recruits and 'employers meetings' held in the college were frequently so poorly attended that they were of little effect. Use of Training Associations was found ineffective in one case (College S) but extremely effective in colleges in the Sheffield area, where word of mouth' contact between companies has been seen as a key factor in successful recruitment.

63. In schemes which had not achieved viability, the above strategies had also been used, although often to a lower level, particularly in respect of visits made. Factors which seemed to be important were intensity of the recruitment process, local factors, and competition with other courses. In the case of one college in which Food Trades Principles was in competition with a parallel UVP scheme for a similar client group, TRADEC failed to attract a viable group, although the orientation of the schemes was different. Differences in remission given for liaison activity also appeared to be significant in recruitment. In colleges in which remission was not officially granted, there were some instances of a degree of flexibility being given to the Course Tutor in order that necessary recruitment activities could be fitted in.

64. Considerable effort had been put into production of attractive publicity for the scheme by several colleges, and the initiative of YHAFHE in producing a film, and, at the time of writing, in planning training for marketing of TRADEC, all serve to underline the importance attached to this aspect. The recurrent problem of staff 'not being trained as salesmen' was mentioned both in the colleges and by the YHAFHE staff responsible for the schemes, and an emphasis, rarely found in other schemes, was placed on the need to develop 'selling points' and techniques, by many TRADEC proponents. 'Selling points' were considered to include the claimed 'profit' to the employer in training staff for greater flexibility and adaptability, in reduced staff turnover from greater satisfaction with their work, and in the inclusion of project and related activities which could be geared to specific company requirements. Considered in the light of the actual operation of schemes, some of these claims were considered questionable by the college staff involved in implementation. Several Course Tutors mentioned their hesitancy in making claims which were subsequently not borne out, in view of the effects on subsequent recruitment and general employer-college relations.

65. In a significant number of cases in the Engineering Zone (Mechanical and Fabrication and Joining Trades Principles) employers releasing young people to 'go to the Tech' were not aware of the particular course on which the student was being placed, and left the matter of placement entirely in the hands of the college.* In cases in which the employee was designated an apprentice or similar, but was not receiving EITB off-the-job training and modules, many colleges made placements automatically onto the TRADEC schemes. In these instances recruitment effort was decreased since many of these young employees concerned could not correctly be regarded as the traditional non-participants in FE and would have been engaged in another form of course had they not been placed on TRADEC** This aspect of recruitment and placement raises many issues and questions, not least in respect of the role of 'process experience' in craft studies, and of the relationships between skill level and training.

66. While initial recruitment effort was high for all schemes, once a core of users had been established the expenditure of time and effort on recruitment was considerably lowered. Some colleges, relying very heavily on a core of established users, found particular difficulty during the 81/82 academic year because of the effects of the recession on recruitment in the participating companies. Other colleges sustained and extended their recruitment targets from year to year. These, it appeared, were slightly less susceptible to the recruitment problems indicated above.

67. Many colleges, on establishing a Stage 1 scheme, had establshed Stages 2 & 3 in succeeding years. In the Engineering Zone Schemes most students progressed and it was therefore relatively simple to launch each new stage in the year immediately succeeding the launch of the last, and in most cases this was done. One college however, placing more emphasis on the UVP concept than did many others, concentrated effort on Stage 1 only, while others used lower stages as feeders to City & Guilds Craft Studies. In the non-engineering areas it was more common for a Stage 1 scheme to be run several times over in order to accumulate a 'pool' of clients able and wishing to proceed to subsequent stages. This was clearly linked with norms and traditions of the particular Industry, for lengths of training, and with the status of the actual recruits in terms of perceived training needs. An engineering employer, for example, would regard a training period of 3 years or more as normal for an employee termed, rightly or wrongly, an 'apprentice'. In the distribution area, however, where schemes were, in most cases, only of 12 weeks duration at Stages 1 & 2, many employers would have regarded a training period in excess of one year, and in some cases in excess of 3 months, excessive for the categories of workers who traditionally have received no release for FE. Direct entry to Stages 2 or 3 occurs to some degree in most schemes. It was particularly marked in the Commercial Trades Principles Schemes selected for case study in which BEC General pass students presented a substantial source of demand for Stage 2.+

68. Few colleges which had launched TRADEC in pre-UVP times had established scheme Steering Committees at the inception of their schemes. Direct guidance was received, when required, from the regional committees established for the maintenance and development of TRADEC. On establishment of the UVP association, all schemes had to

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* See paras 336 - 382

** See paras 135 - 149

+ See para 174

establish Steering Committees, comprised of College Staff, Company Representatives, Careers Service, Trades Unions, H.M.Inspectorate etc. Several of these were moribund at the time of investigation. In other instances, Steering Committees had been established to deal with all TRADEC schemes operating within a particular college. In respect of the DITB/TRADEC schemes, a Regional Steering Committee for TRADEC had been established, following the decision by DITB that TRADEC would no longer be adopted as a model or component for UVP schemes.

69. The Steering Committees operating fully and effectively were found most often in those schemes in their pilot stages, and it was clearly in this period that their value was at its greatest. The post-hoc introduction of Steering Committees for already established schemes had generated some resentment in some cases, and the opportunities offered had therefore not been capitalised on. The review of Steering Committees currently underway suggests that a system of regional or sectoral Steering Committees backed by Field/ Development officers could prove a more economic and effective way of guiding schemes.

FEATURES OF THE INTRODUCTION AND DEVELOPMENT OF THE OPERATIONAL SCHEMES.

Mechanical Trades Principles

70. Five Mechanical Trades Principles Schemes were surveyed, and one of these 'case studied' during the course of the study.* (College A)

71. The MTP scheme operating in College G was among the first set of schemes to be launched, the college having been heavily involved in the TRADEC development from its earliest stages. The Course Tutor claimed that a need, in the Sheffield area, for a scheme designed for the 'operative' level of employee had clearly manifested itself. There was a substantial target of operatives in large companies, who were using a high degree of skill in a narrow area, but who were not multi-skilled craftsmen and therefore received little training and, in most cases, no Further Education.** There was also a large number of small companies in diverse industries often living off steel, employing some specialist workers for whom little provision was made in traditional FE. Stage 1 was established in 1975, leading to the introduction of Stages 2 & 3 in subsequent years. Full support had been given in the college from the Principal 'downwards', and good relationships with the LEA had enabled the department to obtain time for industrial liaison, double staffing for the integration of SLS components and, importantly, the upgrading of TRADEC 3 work to Burnham Level IV.

72. One factor in the early development of the scheme was the growth of many small firms, with an accompanying interest in production rather than in traditional craft support. In the first year of operation, approximately 150 companies had been approached. Ten to twelve of these sent their employees on the initial pilot scheme. The Course Tutor had worked through three training associations, incorporating 300 firms. This had meant that the scheme was made known to

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* See Chapter 10, Case Study 1

** See paras 144 - 146

small companies. These, while in some cases only sending a single employee periodically (i.e. every few years), proved to be a valuable source of recruitment. Recruitment from these small firms was also serving to draw in those young people who would, almost certainly, have been non-participants in conventional courses, and the scheme was therefore meeting a prime objective of TRADEC. The particular value of the Training Association, it was claimed (and reinforced elsewhere) had been in the 'passing by word of mouth' which had taken place through this medium. The college found that approaches had come to them from companies by this means. The Course Tutor had also undertaken direct canvassing of employers, concentrating on those employing trainee operators and semi-skilled workers.

73. The initial low take-up of the scheme had quickly built up into a substantial core of users, supplemented by the periodic small company users, and the establishment of the scheme was greatly helped by the continued involvement of 2/3 companies sending a total of 50/60 students. The scheme has, over a long period, remained one of the largest, although the most recent intake had dropped to 40 students on Stage 1 comprising a substantial proportion of WEEFs trainees, reflecting the general pattern of falling numbers due to the combined effects of recession and reliance on existing recruitment sources. The firm establishment of the scheme and the wide knowledge which local employers had of it, had meant that the amount of time and effort given to recruitment was currently considerably less than it had been formerly. While all staff have a duty to maintain continuing industrial contact, it remains the responsibility of the Course Tutor to liaise with prospective companies. Once established at least one liaison meeting was held with each company, each year, for purposes of discussing areas of satisfaction, dissatisfaction, and any developments or changed requirements of the scheme.

74. Eight lecturers from the Engineering Department, and two general studies lecturers were involved in 1981/82. All those involved in the workshop aspects of the scheme were engaged in company liaison, project supervision, assessment and course planning duties. One member of the Course Team was each responsible for the administration of one stage, and the former Course Tutor undertook overall co-ordination. A Joint Steering Committee had recently been established for the three TRADEC schemes (MTP, FJTP and CTP). operating in College G, to meet UVP requirements. The Steering Committee meets approximately twice a year.

75. College A, too, had been involved from the early stages of the TRADEC development. The Course Tutor expressed the emergence of the need for the scheme, within the College; in these terms:

> 'there was a need for it once the old City & Guilds Crafts Practice Course fell away and we found that there were a lot of students who came to the college who were not following the EITB training scheme. So we wanted somewhere to place these students, and this Trades Principles Course filled that gap.'

This view of the scheme's origins was reiterated by the Head of Department. So, rather than recruiting non-participants in the usual sense, the emphasis here appears to be on placing on an alternative course, those for whom craft studies would necessarily be an incomplete experience, (although the question of the role of process experience again arises.)*

76. Factors which were seen as important, by the Head of Department and Course Tutor, in the successful establishment of the scheme in the College were, firstly, the support of the Principal and the fact that the course had always been backed with resources Some remission for liaison (2 hours a week for the Course Tutor and 1 hour a week for other staff) had also been given. However, other members of the Course Team complained of difficulties caused by lack of organisation and resources, that remission was 'unofficial' and that since in practice no one person has the responsibility for selling TRADEC, recruitment was poor.

77. In the first two years of the schemes operation, students had been drawn from companies which were existing college users rather than from approaches to new companies. Mailings of course information had then been undertaken to 180 companies in the 'catchment' area of the College, but this had proved ineffective and company visits were being re-established as the principal means of recruitment. There was a core of four companies sending several students each year, which had given some stability, but Stage 1 failed to operate in 1981/82. Lack of co-ordination and extension of recruitment activity had clearly contributed to this, although the economic circumstances were again a primary factor. The students tend to be drawn from quite widely differing occupations, ranging from machine operators to production trainees closer to the craftsman apprentice than to the operator. Once a group had been established, two or three liaison visits per year were made to most of the participating companies for the purpose of familiarisation with the course programme, (in the case of new companies), and for discussion of project work to be carried out. Maintaining contact with progress of students in those companies in which a substantial amount of project work was undertaken within the company, under the supervision of industrial supervisors, was also an important function of liaison.

78. The Course Team comprised six staff of the Engineering Department, three of whom were normally engaged in any one stage together with one or more members of the General Studies Department. The Course Tutor was responsible for industrial liaison, for course administration and planning, and undertook some classroom teaching and project supervision. All staff in the Course Team contributed to liaison activity. Some organisational problems had been encountered in the co-ordination of teaching, particularly in maintaining continuity of teaching within the Department, and between the Engineering Department and the General Studies Department. The scheme 'officially' had a Steering Committee, which had initially been active, but had not met for 18 months.

79. Colleges H and M, also involved from the early stages through membership of the regional TRADEC committees, provided examples of schemes experiencing decline at the time of the investigation. Both schemes had, again been established to meet the demand created by the

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* The specification for process experience in Mechanical Engineering and in Fabrication and Welding appears in City and Guilds Part 1 Engineering Craft Studies syllabus, 1982, pp 49-71. It is intended 'to provide students, not receiving training, with the necessary workshop experience required to carry out the practical activities associated with the(200 series) syllabus, and to enable them to progress to Part II courses with safety and confidence. The process experience programmes should also be used to establish students' ability to manipulate the listed tools and equipment correctly!' p49

change in craft education and training, and met with success because of their greater relevance for those not receiving full EITB off-the job training plus modules.

80. The area in which the MTP scheme of College M operated, held many small companies supporting 2 or 3 large concerns including the National Coal Board and British Steel Corporation. The scheme had been introduced in direct response to the decline of conventional courses. The College had, in parallel, made substantial increases in provision for the unemployed. In this context TRADEC had not been seen as particularly radical or innovative in its approaches.

81. The scheme introduced in College H had developed steadily from one to three stages and peaked at 25/30 enrolments within one year. The numbers subsequently went into sharp decline. Similarly the College M scheme started in 1979 progressed to all 3 stages by 1981. However, lack of recruitment to Stages 1 and 2 for past two years had reduced the scheme to 8 students in Stage 3 only in 1981/82. Factors important in this process of establishment of the scheme had, in both cases, been the initial support and enthusiasm from higher levels. However, in the case of College H there had been some 'hostility' towards the development from some of the members of the Department. There had also been discontinuity with the absence of a Head of Department for 18 months. At this point TRADEC had 'lost its way' and recent attempts to revitalise it, with the support of a new Vice Principal had run into the recruitment problems, caused by sharp decline in target population exacerbated by the additional difficulty of operating as a 'feeder' to another college this has put in doubt the future of the scheme although efforts continue to be made. The Department considers it possible that they have 'fished the pool dry' with little chance of continuing viability.

82. In both colleges, recruitment took place largely on the basis of existing industrial contacts, since both were part of well-established local networks. Recruitment had been extended to other companies likely to hold the target population in the early stages. Special promotion activities had been devised in both cases. College M had held a special Mayor's banquet to launch the scheme! In College H, 80 new companies were contacted and a seminar held for 22 companies for the current academic year, but the response had been 'extremely disappointing'. Both colleges had approached companies directly by personal contact, although it was noticeable that in the latter, established relationships with local companies had been very heavily relied on, and both liaison and recruitment visits were relatively few in comparison with many schemes.

83. The staffing arrangements are again shown in Table 2.1. The 'Course Tutorship' of the Wakefield Course was changed every 2-3 years as a matter of College policy. The Course Tutor had sole responsibility for recruitment, liaison and project supervision and other administration. There was little course planning work, he claimed, since the scheme was now well established. The staff involved in the College M scheme had been selected as those who had a real interest in and commitment to the TRADEC development. The Course Tutor was responsible for the co-ordination of industrial liaison, which was shared between himself and two other staff members, for all course administration and for the co-ordination of planning undertaken on a team basis. All staff contributed to teaching and

the Course Tutor was involved in the selection and design of project work which was, therefore, the responsibility of another team member.

84. The Steering Committees of both schemes had, again, been established because of the UVP association, but had rarely met. The Steering Committee to the College M scheme had only existed for two years as it had only been required for Stage I (UVP). The College had been represented by the Head of Department, Vice Principal and Principal, with the Course Tutor invited as required. The Steering Committee was considered by the Course Tutor to have made no contribution to the scheme whatsoever.

85. College J had established a scheme which was more consciously directed towards and shaped by the concepts of Unified Vocational Preparation than the MTP Courses which pre-dated UVP and had their origins firmly in the 'Craft Practice' area. The introduction of TRADEC had initially met with resistance in the Department concerned, since it was considered to be an unacceptable alternative to the City and Guilds 200 series. On the introduction of UVP and the financial backing and orientation that gave to TRADEC, the decision was made to proceed, but with little enthusiasm from the Department as a whole. The scheme has remained at Stage 1 only, and those showing ability to cope with 200/205 City and Guilds are transferred. The Course Tutor considered that institutional factors had substantially impeded the growth and development of the scheme, and had also found that the response from industry was frequently 'hostile'.

86. Attempts at recruitment to the scheme had extended far beyond the normal catchment area, both geographically and in terms of type of company. But the Course Tutor had found 'selling' the scheme extremely difficult, and the take-up rate very low, despite intensive personal visiting. The relatively late introduction of the scheme in a period when recruitment of labour was already falling substantially undoubtedly had an effect here, although the Course Tutor's perception was one of hostility or apathy to the scheme on the part of many employers. Liaison was undertaken on a continuing basis with the three or four companies involved. The small number of companies made intensive liaison activity possible.

87. The Course Tutor was responsible for all co-ordinated planning activities for TRADEC and other UVP schemes. He had been granted 6 hours/week remission to undertake this work. The staff team of four, involving three Mechanical Engineering lecturers and one General Studies lecturer, contributed principally to classroom teaching, other duties being carried by the Course Tutor.

88. The Course Tutor, although a supporter of the TRADEC development from the outset, considered that the system had ossified and presented many points of weakness when compared with current Vocational Preparation developments. In 1981/82 a UVP scheme in engineering was offered with some identifiable TRADEC characteristics, but not under the TRADEC system. The newly constructed schemes formed part of wider college development under the New Training Initiative 'umbrella'.

Fabrication and Joining Trades Principles

89. Five FJTP schemes were surveyed, (Colleges B, C, E, L, S) and one of these was 'case studied' (College C).

90. The Fabrication and Joining scheme running in College E had been launched in 1977. The need for a course of this type had been generated by a move from sheet metal to heavy plate metal working in the area, combined with the decline of some large companies and the growth of smaller companies requiring less specialisation. Stages 2 and 3 were introduced in successive years. Factors seen as important in the successful establishment of the scheme were the effective team work of staff, the remission for industrial liaison and the general support to the development given by the College Principal (Chairman of the Trades Principles Committee). All companies working in fabrication within the college 'cathcment' area had been approached both with pamphlets and personal visits. The initial take-up had been very high, but a slight decline had taken place recently through the combined effects of competition between three colleges offering Fabrication schemes within the area, and the effects of recession on the size of the potential client group. The Course Tutor had found it necessary to generate new contacts continuously because on the large turnover of companies. Liaison activity in respect of project work which involved company-based working was also undertaken on a continuing basis.

91. The Course Team comprised three staff of the Engineering Department. The Course Tutor carried responsibility for all course administration and planning and shared the liaison duties with one other member of the team. All teaching, project supervision and other duties were shared by the Departmental team of three. The College Steering Committee covered the Fabrication and Joining Scheme. There was little contact or communication between the Course Tutor and the Steering Committee.

92. The scheme developed in College B, also involved in the TRADEC development since its inception and offering one of the competing schemes mentioned, was in its fourth year of operation at the time of investigation, and was considered to be 'well established'. The Course Tutor saw the scheme essentially as a replacement for Craft Practice. There had been little new recruitment activity in connection with the launch of the scheme, since the process was simply one of placement of existing recruits onto an alternative course. The City and Guilds 200 course had not been offered for the last two years, and the client group had been automatically channelled into the FJTP scheme. The scheme had high numbers of participants, and at the peak of demand a ceiling had been placed on enrolments. The Head of the School of Engineering had been fully supportive of the development, and was Chairman of the Writing Group for the Electrical Scheme as well as in membership of the Trades Principles Committee. Once established, one or two liaison visits per year were found necessary to maintain contact, although a greater number of visits was undertaken in the Company, This applied to less than 10% of companies.

93. Six staff of the Engineering Department were involved in the scheme. The Course Tutors were solely responsible for Course administration. All members of the team were engaged in all course duties. Some difficulties in course organisation had been encountered with the timetabling policy of the college, described as rigid, which had made it difficult to translate the 'array' satisfactorily into practice. A Steering Committee had been established in line with UVP

requirements. The Committee was currently inactive, the last meeting having taken place over 12 months ago. The Scheme introduced in College C in 1976, had also been prompted by the need to fill the 'gap' in provision left by the phasing out of Craft Practice.* This scheme had taken hold before recruitment of new workers had declined substantially with recession, and a good base of participating companies had been built up by personal contact, with attempts to widen recruitment each year. Some 35 Companies, mainly small firms, were involved in 1980/81, dropping to 27 in 1981/82. The acquisition of UVP status in the scheme's second year of operation had given clear financial advantages and had influenced the scheme, in respect of the attention given to SLS.

94. The Course Tutor had been involved since the start, and undertook all coordination and administration activities as well as 16 hours/week teaching in the scheme. The members of the Course Team, including General Studies Staff, contributed primarily to classroom teaching and project supervision. A College Steering Committee for Engineering Zone schemes was introduced in 1981 to replace earlier committees convened for specific schemes.

95. The scheme operating in College L provided an example of a more recently launched initiative. The introduction of the scheme had been prompted by the fall-off in the number of companies involving young workers in EITB training (attributed partly to a perceived 'lack of relevance' to their needs.) The demand for an alternative had not been an active one - considerable effort had been put into selling TRADEC as an 'alternative'. Stage 2 had been added for the first time in 1980/81 while two groups had become established at Stage 1. The College had no plans to offer a Stage 3 scheme, the intention being to transfer participants to City and Guilds Courses following completion of Stage 2, in order that they would gain the 'internationally recognised City and Guilds' qualification'. It was considered by the Course Tutor that the institutional factor of support from above had been important in the success of the scheme, although administrative staff cuts had generally impeded new work. Another factor associated with the successful launching of the scheme had been the large amount of 'leg-work' undertaken for recruitment purposes. Almost all companies in the trade had been visited, and 'enormous resistance' (it was claimed) had been encountered initially, from disenchanted employers. The 'core' of employers involved in the first instance had been tapped subsequently and following the initial approaches, the Course Tutor had limited his field to those with real recruitment potential.

96. Once established, continued liaison at two levels took place, with the works manager or similar for general matters, and with the foreman for the specifics of project work. The students recruited to the scheme tended to be narrowly spread in terms of occupation, mainstream welders/fabricators in most cases. Several WEEPs trainees were involved at the time of investigation.

97. The scheme involved a team of four staff. All members of the team were engaged in the range of course duties, including liaison. Responsibility for course administration lay with the Course Tutor.

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* See Chapter 10, Case Study 2

Some organisational problems had been encountered in respect of timetabling, allocation of suitable staff to the scheme, and cross-division working in some aspects of the scheme. The Steering Committee no longer existed. The Course Tutor reported that it had 'degenerated' because of lack of support from the employers.

98. College S introduced a Fabrication and Joining Scheme during the year of the investigation. The scheme was the only one of a package of proposed schemes, including Mechanical Powered Traction Trades Principles, to attract a sufficiently large group to be viable. It was the first TRADEC scheme to be successfully launched in England & Wales, outside the Yorkshire and Humberside Region. The scheme provides an example of the stimulus to innovation of falling student numbers in the traditional areas. The fall of apprentices from Rolls Royce from 120 at the peak of demand, to 40, then to 20 and finally to zero in 1980 led the department to give priority to the development of new schemes. The Course Tutor had suggested the introduction of a TRADEC Scheme, having attended a conference of YHCFE some years earlier, and despite little enthusiasm was enabled to proceed with the attempted introduction of MTP and FJTP. Approximately 200 companies identified within the scope of the schemes were reduced to 68 which were visited following initial screening of the original list. 11 companies were successfully recruited to the FJTP scheme. MTP failed to reach viability.

99. A series of 5 liaison visits per company were planned for the purposes of ascertaining specific company requirements, obtaining feedback and establishing major projects during the operation of the scheme. Two staff were responsible for liaison activities, the Course Tutor having sole responsibility for industrial liaison during the first year of operation. Industrial liaison duties were to be shared in subsequent years of operation. The scheme had an active Steering Committee of the usual composition which had first met in June 1981.

100. In the Mechanical and Fabrication and Joining fields then, initiating and maintaining a scheme had several important distinctive features. Firstly, there is a ready market of young employees in a variety of more or less highly skilled occupations, in companies in which there is an expectation of using FE, even if only as a duty, for those in bands closer to the traditional apprentice than to the operator. It is interesting to note that the only schemes successfully launched in new colleges seeking to enter the system, in 1981/82 have been the Fabrication & Joining schemes.

101. Many of the participating companies are small companies not providing complementary training - a feature particularly marked in FJTP schemes. The job of maintaining schemes with large numbers of small user companies is an extremely demanding one, which requires either good remission or high grading, combined with very high commitment, from the Course Tutor. 'Selling' and maintaining levels of recruitment is still an intensive process, even with a ready market, and maintaining contact over large numbers of often individualised projects is similarly so.

Distribution and Consumer Trades Principles

102. Five DCTP schemes were surveyed, (Colleges D,E,F,K,P) and one case studied.* (College F)

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* See Case Study 3 Chapter 10

103. Distribution and Consumer schemes were first launched in 1977 and took hold rapidly. Colleges D, E and F all launched Distribution & Consumer schemes in the early stages of the scheme's development. D and E were already 'established' TRADEC colleges, through their work in Mechanical Trades Principles. In the case of College D, and in both Mechanical and Fabrication & Joining Trades Principles in the case of College E.

104. College D launched the pilot Distribution and Consumer schemes in 1979, following a 'college scheme' run on the UVP model in 1978 for the Coop. The original schemes were in some cases run as DITB/TRADEC schemes and all received UVP funding at Stage 1. Stages 2 & 3 were introduced in successive years, and recruitment was high, with fall-off in 1980 rendering several parts of the scheme non-viable. One of the largest subscribers had withdrawn because of staff shortages which had made release difficult. Withdrawal of DITB support had also temporarily damaged recruitment although the DITB Field Officer had continued to support recruitment to TRADEC in practice. Attempts were made to draw in new types of employers extending beyond retail distribution. In September 1981 the scheme was successfully revived, and two schemes ran in academic year 1981/82. The Steering Committee met twice a year, but was considered in practice to be weak although potentially useful.

105. In College E the introduction of the Distribution and Consumer scheme had, from 1977, proceeded hand-in-hand with UVP developments and had originally been constructed as a DITB/UVP/TRADEC scheme. Since the industry has little tradition of training, the existence of a need could be assumed, it was suggested. A 'fairly stable base' of employers existed. Approximately 40 companies were approached each year for recruitment purposes, one-half of these being 'prospective' rather than participating companies. Some overlap in recruitment occurred between the Food Trades Principles and the Distribution and Consumer scheme.* Trades Unions and the Chamber of Trade had also been approached for their support, but experience had shown that it was the direct approach to Companies which really produced results. Earlier attempts by means of letter/publicity had proved ineffective.

106. In the first year of the scheme's operation the extensive recruitment activity undertaken had produced 'take up' of places by six large companies. Recruitment had spread beyond these companies subsequently. Eleven Stage 1 schemes and one Stage 2 scheme had been run at the time of investigation, with an average of 12 students. Some schemes had been 'single company' initiatives geared to the needs of a particular company and level of employee; others had covered a wide spread of recruits from retailing, local government and hospital stores. Recruitment difficulties associated with the effects of the recession were also apparent in this scheme, at the time of investigation. Once the scheme had become established, a 'fairly wide clientele' had been built up and it had been found that the intensity of visits for recruitment purposes would be reduced, but even the 'good companies' needed to be chased. The UVP grant of £4 per day plus payment for incompany elements was important for employers in this industry. This contrasted with the engineering sector in which the grant was considered to have little effect as a recruitment incentive. The client group was comprised principally of sales assistants.

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* The two schemes in question were very closely linked, and were promoted together.

107. The Course Team of five staff of the Department of Community Education and Staff Development comprised one Senior Lecturer and four Lecturers at Grade II. Liaison and administrative duties fell to the Course Tutor with overall responsibility for Food & Distribution schemes, who was also substantially involved in scheme teaching and project work supervision, shared between the Course Team members. The College Steering Committee was considered by this Course Tutor to be 'pliable' and Course Tutors could take the lead over change if they wanted.

108. College F had entered the TRADEC system in 1976 (See Case Study 3) A college - devised short course in distribution had been launched in December 1975. TRADEC was naturally adopted as a replacement for this. The scheme was conducted to 'fill a gap' both in respect of students unsuited to BEC and in respect of students completing BEC General to Pass level and thereafter unable to progress within the BEC system. TRADEC 2 was considered an appropriate scheme affording further opportunities to this group.

109. The target employers were those with a long standing association with the college, and the department clearly prided itself on its existing industrial links. 'In-fill' recruitment was undertaken by DITB. It remained the case in this scheme, at the time of investigation, that DITB effectively undertook recruitment, and the college 'simply received' the students. Two effective liaison and recruitment sources had been a local Cooperative Society and the Sheffield and District Training Association. The numbers were sufficient to obviate, in the Course Tutor's view the need for individual visiting for recruitment purposes, although continuing general liaison occurred with the major stores and chains. The DITB grants were seen by the Course Tutor as significant factors in employer take-up, together with the tendency for employers to recognise TRADEC both as more suitable, in terms of content, and more flexible in terms of organisation, than alternative courses. On entering the UVP 'system', the mode had changed, temporarily, from day release to the College, to a day split between the College and the local YMCA. The original model had been reverted to as this arrangement had proved unsatisfactory.

110. The scheme was one of the few continuing to expand during the recession. The client group was predominantly comprised of sales assistants drawn from enterprises ranging from small shops to department stores. Block courses on the TRADEC model for Work Experience learners were being run in association both with the Sheffield and District Training Association and a Cooperative Society, in parallel with the 'Standard' schemes.

111. The Course Tutor was entering his fifth year in this capacity, and acted as Course Tutor for all Stages. He undertook 95 per cent of all liaison work, and was solely responsible for course administration and planning. The teaching team, for a total of 155 students, was 3 full-time lecturers and two part-timers. The expansion of TRADEC had created some staffing difficulties latterly, particularly with the recent increase in demand arising from the introduction of the 'short block' model. There was resistance from many of the existing staff towards increasing their involvement in TRADEC (and therefore in more 'low level' work in grading terms). Part-timers were increasingly being employed, laying added responsibilities on the Course Tutor for inculcating a

changing and discontinuous team into the concepts and practices of the TRADEC approach. The scheme had no Steering Committee; The Regional Steering Committee for Distribution & Consumers schemes was regarded as the Steering Committee.

112. College K had introduced TRADEC as a replacement for National Distribution Courses, which had not proved successful. The one year attendance pattern for the latter had proved unpopular with employers, and there had been a high drop-out rate. The 13-week TRADEC scheme developed by the College had been more able to respond to needs for flexibility, it was suggested. The need was perceived again in terms of a 'vast, initially untapped market' in this industry.

113. A DITB/TRADEC scheme had been developed as a departmental initiative in 1978. DITB had undertaken the initial organisation and recruitment for the first four courses, and in this respect had played a 'crucial role' in the period 1978-80. When DITB recognition of TRADEC ceased in 1980, the course had been placed in temporary abeyance until January 1981, pending the re-establishment of the UVP association directly through the IDG channel. The UVP association was again considered vital because of the importance of the grant in this industry. DITB recruitment had tended to focus on a small core of companies. Some resistance had been encountered as many employers dismissed training for 'shop girls' as unnecessary 'as they only stay for a couple of years'. When the College took over responsibility for recruitment, the scope had been widened, methods were based on mailings and follow up telephone contact, coupled with personal visits. By these means the Department had experienced relatively little difficulty in obtaining sufficient students. One staff member had overall responsibility for the marketing of all Distribution courses offered by the department, and initiated a considerable range of employer contacts. The client group comprised sales assistants, principally, but included, occasionally, a typist or fork-lift truck driver.

114. Remission was granted for industrial liaison. The burden of recruitment activity was noted by the coordinator, who drew comparisons in respect of the relative ease with which schemes operating in the Huddersfield & Sheffield areas, which had strong retailing traditions, could count on a high level of recruitment without excessive expenditure of time and effort. The Department was planning to offer Stage 2 in the near future.

115. The Course Team comprised two full-time and one part-time lecturer and a YMCA Youth Tutor. The original TRADEC Course Tutor had moved into the role of overall co-ordinator of Distribution courses, and a new Course Tutor was introduced in 1980. Liaison for recruitment was shared between the general co-ordinator and Course Tutor. Continuing industrial liaison, course administration and planning were all handled by the co-ordinator. Classroom teaching and other responsibilities were shared by the staff team. A Steering Committee had been established to meet UVP requirements. Relatively little contact existed between this course team and Steering Committee, except for the purposes of 'reporting back' periodically.

116. College P offered the most recently established scheme surveyed. The College had entered the TRADEC system for the first time, in 1981. Here the context was one of heavy involvement in schemes for the young unemployed. As a new college just establishing itself, new initiatives were welcomed and received the full backing of senior staff. TRADEC had been the first course to be developed in the retail area, and, indeed, it was on the strength of this first experience that a full-time lecturer in retailing had been appointed. The scheme was considered to be instrumental in developing the retail field within the college by showing local retailers that the college was taking the area seriously. Some companies had already involved young employees in the Richmond Scheme, and were therefore familiar with the TRADEC approach. As a College with no established network of industrial contacts, establishment of effective liaison had been a priority not only in respect of TRADEC but also for the development of many other forms of provision. Initial approaches had been made to assess whether a market for TRADEC really existed. Mail shots, visits and telephone contact with approximately 300 employers had secured the participation of three companies in the first scheme. The Course Tutor described the employers' reception of the idea as either 'hostile' or 'apathetic'. A minimum of two liaison visits to each participating company was intended, and in most cases carried out, during the 12 week scheme.

117. The Course Tutor was responsible for all aspects of the scheme, and was supported by three part-time staff involved in classroom teaching. TRADEC Stage 2 was established in quick succession to Stage 1. There were no clear plans to extend to Stage 3 at the time of the investigation.

118. In Distribution and Consumer schemes, then, the picture is one of a clear gap easily identified, with employers seeking new courses by virtue both of financial incentives and of some degree of dissatisfaction with the level or orientation of existing courses. In the areas with established retailing traditions Distribution and Consumer schemes appear to take hold fairly easily. It is the only scheme to have expanded its numbers in a year in which part-time courses for the employed have, in general, been badly hit by the effects of recession on the client 'pool'.

Commercial Trades Principles

119. Both of the Colleges (E and G) involved in Commercial Trades Princples schemes were included in the survey investigation, and one was case studied.*(G). The schemes in the pilot stages at the time of survey, had been introduced in established TRADEC colleges.

120. College G and College E both had considerable experience of operating TRADEC, in the former case exclusively in the Engineering Zone, and in the latter case, across the spectrum of TRADEC schemes. The Course Tutor of the scheme operating in College G had been an active member of the Writing Group for the scheme. The College had undertaken to pilot the scheme for Stage 1 in 1979, and for Stage 2 in 1981. As in many other cases, identification of 'need' was based solely on knowledge of the existence of the target categories of workers in the locality.

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* See Chapter 10, Case Study 4

Initially, the scheme had been established by direct recruitment from employers, approximately 20 - 30 employers having been visited. The spin-off from the development of Mechanical and Fabrication & Joining schemes and the contact network provided by the Training Association had been important in the successful launch of the scheme. During the current year the number of companies releasing their young employees had fallen substantially. At the time of the study, recruitment to the scheme was being undertaken principally through the Careers Office, resulting in an influx of WEEPs participants and unemployed young people to the scheme. The scheme was clearly experiencing some of the problems of lack of continuity caused by WEEPs predominance in the study groups. The scheme recruits were in junior clerical/clerk/typist and similar jobs or Work Experience.

121. The Course Team comprised two members of the staff of the Department of Business Studies, and one member of the General Studies Department. All liaison and other course duties were shared by the two staff of the Business Studies Department. Some problems had been experienced in respect of allocation of resources, attributed to the low priority given to the course when competing for space. The College Steering Committee* was responsible for the CTP scheme. The Head of Department represented TRADEC on this committee. It was considered that the committee 'made little impact' on the way in which the scheme operated.

122. The scheme operating in College E had been introduced in 1981, for those companies which required 'something a little bit more basic' than BEC. Stage 1 had been launched and Stage 2 was in planning. The Course Tutor considered that there was a market for Stage 2 which was quite distinct from Stage 1: that of older workers requiring retraining. This and the Food Trades Principles scheme offered by College A were the only schemes to see the older worker as a primary target for TRADEC. Recruitment was again undertaken by personal visit. A core of 10 employers had been extended to 30, and the help of the Training Association had proved important. Recruits had, in the first instance, been workers requiring basic clerical preparation. The majority were in the 16 - 19 age range, but the scheme had included several participants in their twenties. Once in operation, liaison visits were made approximately once per month in connection with scheme activities. The Course Tutor was given remission (which was substantial in comparison with other colleges) to undertake all coordination activities, and was also responsible for all project supervision. The two other staff in the team undertook all classroom teaching.

Food Trades Principles

123. Two Colleges (E & A) were operational in Food Trades Principles at the time of the survey. The scheme offered by College A was case studied.** The Food Trades Principles scheme which had been introduced as a pilot scheme in College E in 1980, was run in close association with the Distribution and Consumer Scheme, using the same recruitment approaches, and combined publicity in the overlapping networks. Recruitment had been found difficult, as in the College's Distribution and Consumer schemes, because of the nature of the Food Industry, which has as limited a tradition of training outside certain narrow occupational bands as does the Distribution Industry. At the time of the introduction of the Food scheme, considerable experience had already been gained of the implementation of DCTP. The two course programmes were closely linked,

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* See para 74

** See Chapter 10, Case Study 5

and in some parts combined. The scheme has been successful in attracting two viable groups at the time of investigation, although the scheme failed to achieve viability in 1981/82 in common with the new scheme offered by a Leeds College specialising in the Hotel-Catering-Food studies fields. The staffing, organisational and Steering Committee arrangements were similar to those of DCTP.

124. The scheme offered by College A had been piloted in the summer of 1981. A member of the Department of Health and Social Studies had participated in the Writing Group. Once Stage 1 had been written, it was 'a natural time to try it out', and in terms of staff available at that time the scheme was feasible in resource terms. The Course Tutor claimed that need, as in the case of DCTP, could be assumed of the serious gaps in provision for the 'below craft' level in the Food Industry. The length of the course had been extended from 10 - 16 weeks for the second run, on the advice of the Moderator.

125. The Course Team comprised two 'regular' full-time Lecturers, and 'occasional' contributors including a Public Health Inspector and Hotel Managers. Organisational problems in attempting to balance the liaison and curriculum demands of the scheme with a full work load had beset the course in its second run. These problems had not been encountered to the same degree when the scheme had been first offered, in the summer months. Problems in respect of securing payment of the UVP grants had also occurred. There were plans to put the scheme into abeyance for these and a host of reasons connected with the curriculum dealt with in Case Study Report 5.*

126. The recruitment experiences of the Course Tutor had revealed the small enterprises to be most responsive. Visits to fifteen establishments had initially produced 11 recruits, mostly at lower supervisory level, and aged 19 and above. On the second Course, launched in the Autumn Term of the 81/82 academic year, the number of participating companies dropped to five. The reasons attributed by the Course Tutor were changes in management and an increased reluctance to release from the manpower point of view, in the economic circumstances. There were no plans to introduce Stages 2 or 3 as there was no evidence satisfactory to the Course Tutor that there would be sufficient demand. The Course Tutor considered that only two of the pilot scheme participants would have been eligible or suitable for continuation. Although they were largely in lower supervisory jobs, they were 'totally untrained' and a direct linking to Stage 3 was not considered appropriate. The client group for the second course had been drawn from the low skill occupations (eg. fish fryer, tea attendant) The scheme had involved a high level of continuing college - company liaison in order to maintain the incompany element, which was more substantial, in the pilot scheme, than that found in many other schemes. Employers had participated in supervision and assessment in the first scheme, although incompany support had diminished, for a variety of reasons, on the second scheme.

Concluding Remarks

127. The general picture, therefore, is one of considerable variation in the ease with which schemes can be launched. The prospects for new schemes trying to gain a foothold, in all cases but FJTP and DCTP, are not currently good. The difficulties experienced by Commercial Trades

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* See paras. 647 - 667

Principles, relying heavily this year on work experience youngsters, Food Trades Principles, in which only one scheme has become viable and Powered Traction and Electrical Trades Principles, which have yet to get off the ground, reflect the combined effects of recession and the nature and expectations of the industry concerning training. The latter factor is illustrated by comparison of the Food Trades Principles experience with that of the City and Guilds Specific Skills Scheme for operators in the Food industry, which have expanded considerably during the year.

128. The cases show that there is no short cut to recruitment and maintenance of company contact. Support provided by the college is widely variable and is a key factor in the success of the scheme. The level of commitment of the 'pioneer' staff will not extend to those adopting the scheme in its later phases of development. Greater support involving use of higher gradings, remission or flexibility of working arrangements will be required if schemes are to be maintained at their intended level and style of operation after initial development and through the inevitable periods of least energy' which arise in all developments.

129. The characteristics of the intended TRADEC population have been outlined in TRADEC I * This chapter presents an analysis of the extent to which these characteristics are represented in the actual population of participants in the operational schemes, and comments upon the potential of the schemes to attract the intended population.

130. The TRADEC development has aimed 'to create a system capable of providing opportunities necessary for workers or intending workers in a wide variety of occupations for which no satisfactory provision exists'. This intended population coincides, within the 16-19 age band, with the residual population described in the FEU report on Vocational Preparation (1981: 11) Population groups for which no other provision is designed or intended, clearly fall within the intended TRADEC population, which thus incorporates many of the 200,000+ young people in the 16-19 age band who receive no Further Education and little or no training on leaving school. It also clearly includes much of the adult working population in a wide range of occupations.

131. Important questions arise in respect of the participation of groups of young people who are, in the words of the FEU report, realistically or fully committed to an occupation and for which in some cases, other provision is available and intended. Such provision may be considered unsatisfactory by one or more parties to it, by virtue of its incompleteness because of the lack of complementary and/or supporting experience or training. Alternatively, a form of provision may not be participated in because of the demands it makes on an employer, in terms of cost, extent of release or training requirement. Or, it may fail to meet directly and specifically the company's needs. The fact of non-participation does not in itself render the provision unsatisfactory. The placement into alternative schemes of 'FE non participants' who require, but do not receive the level and type of preparation provided by the so-called conventional courses of further education and training invokes the 'half a loaf is better than no bread' argument. While arguments of this kind may be supported for specific groups in the short-term, they are not supportable in the context of longer term interests of a major sector of the labour force now or in the future, or in the context of the major strategies for further education and training for all young people which are currently under development. That the conventional or existing systems and provisions are proving satisfactory in one sense or another for some of their targets, produces the case for improvement of those systems and provisions, and not for feeding their targets into alternative forms of provision primarily designed for different targets. Movements in the so-called conventional camp, in the development and updating of models and systems are clearly intended to tackle those aspects of provision which may render it unsatisfactory to some groups of potential clients within their intended targets.

132. In short the 'traditional non-participants' in Further Education do not coincide with actual non-participants. As the intended targets of 'conventional' forms of provision shift and widen, so do those of the provisions whose targets are defined residually. In the context of the drive towards 'foundation' preparation for all, the distinctions are further blurred. It is with these issues of the appropriate and

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* See TRADEC I paras 8 - 13

actual targets of TRADEC provision, and with these contexts of change and the blurring of boundaries in mind, that the features of the actual participant population of TRADEC schemes is examined.

OCCUPATIONAL CHARACTERISTICS

133. The Principles and Practice of Trades Education (TRADEC) schemes (1982) state that:

> 'courses and opportunities for personal development have been confined to well developed schemes for technicians and craftsmen, or workers at comparable levels.... prescribed study and training of substantial duration (usually 2½ to 5 years).... it is assumed that the worker will thus be equipped for continuous employment in his or her occupational field, and have a 'career' in the sense of achieving status or promotion.... Tradec schemes are aimed at those who have no place in this system because they are in inappropriate occupations. Such persons seldom receive or require substantial training, and even if they had access to existing courses these would prove to be neither appropriate nor satisfactory'.

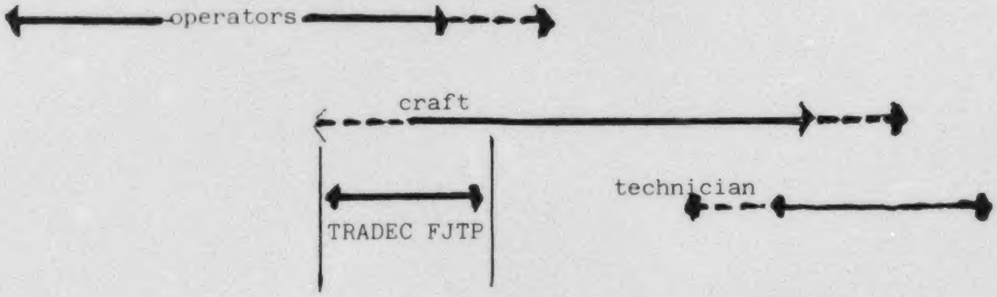
The three-quarters of the population employed in occupations which 'seldom receive or require substantial training' therefore essentially describes the occupational features of the intended TRADEC population. These are the occupations previously termed unskilled or semi-skilled. The blurring of the stratifications of the labour force in the context of changing industrial circumstances and requirements has had ramifications throughout the training systems and has rendered increasingly difficult and increasingly inappropriate the attempt at definition of boundaries between discrete groups of 'skilled' occupations requiring substantial training and 'less skilled' occupations. Recognition of a skills 'continuum' and wider recognition of requirements for the application of skills in 'non-traditional' areas of particular industries (eg. engineering) has clearly reflected and responded to these changes. These changes are of considerable importance in the TRADEC development. Conceptually it is new notions of 'skill' and their relationships with worker roles that underpins much of the TRADEC thinking.

134. Descriptions of actual and intended participants in terms of occupational categories are often unhelpful. In, for example, the FABRICATION field, a term such as 'welder' can incorporate those who make decisions and plan, those who follow instructions and have a limited skill repertoire right through to those who just muddle through. Similar problems arise with 'sheet-metal worker', 'vehicle builder' etc. Therefore, looking at job classifications of those taking TRADEC courses is only a very rough guide. The crucial factor is what they are actually asked to do in their jobs.

Fabrication and Joining Trades Principles

135. In the fabrication field the evidence from the students, companies and colleges would all seem to indicate that the level of skill required by participants is usually much nearer to that of a craftsman than the basic operator. If the operator/craftsman/technician classification were

represented by a continuum , then TRADEC Fabrication & Joining schemes would operate mainly at the level shown.



that is close enough to, (and even overlapping) the craft boundary such that many of the students regard themselves, and are regarded by many employers, as skilled. Few of the jobs are operative jobs which are very quickly learned. Indeed evidence that the training/ learning required may have been seriously under-estimated in the YHAFHE statement, is challenged by some of the colleges themselves who argue that the students work experience coupled with what they learned on TRADEC makes them at least equivalent to, and in some respects better than, those who received conventional training and further education. Arguments in favour of the view that TRADEC is seen as a definite form of technical training which does lead to a clearly defined place in the occupational field, with accompanying status, promotion and/or future job prospects come from two sources. Firstly the number of students who viewed the course in these terms*, and secondly the numbers who carried on to obtain a City and Guilds qualification.**

136. However, although the overlap in terms of occupations between those on TRADEC and those undergoing conventional craft training is much closer than the YHAFHE publication suggests, there is a significant difference in another respect. The type of companies who send their 'apprentices' on FJTP schemes are predominantly small firms, who do not and would not send them on first-year off-the-job EITB training. Nor would the workers subsequently do module training. The City and Guilds Craft Studies courses would, in practice, be difficult to do without this associated practical training. Hence the TRADEC scheme would seem in reality to plug the gap left by the demise of the old City and Guilds Craft Practice courses.

137. Interviews with staff at both CGLI and EITB revealed that both saw TRADEC as supplying a broadly similar end-product to a related, but more or less distinct, population. Teaching and learning methods were also seen as being different, but converging due to the general direction of educational change in this area. TRADEC was viewed as complementary to, rather than competing with the standard craft provision. Staff at both institutions also recognised the necessity of a move towards greater flexibility in training and away from mechanistic and institutionalized arrangements accompanied by the development of appropriate forms of skills standards testing.

These developments mean that

(a) TRADEC was welcomed insofar as it represented a clear step forward for those who previously received very little formal training

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* See Chapter 5

** See Para. 174

(b) that TRADEC-type courses would have a clear future as one route by which a skills standard could be achieved. However, this would mean formalizing the current de facto position whereby TRADEC, in this field, is seen primarily as a vehicle for learning specific skills. This would be perceived as its main purpose, and would call into question even more sharply whether TRADEC should be/is first and foremost, about acquisition of skills or about the personal development of operatives, who have very limited job prospects.

138. An analysis of the occupational characteristics of those involved in the 1981-82 Fabrication & Joining Schemes clearly underlines the point that the present raison d'etre is acquisition of skills (even with all the provisos previously mentioned about difficulties distinguishing what the jobs actually involve):

Welder
Sheet-metal worker
Plater
Apprentice Metalworker
Plater/Welder
Fabricator
Blacksmith/Welder
Fitter
General Sheet-metal/Welding
Welder/Fabricator
Panel-beating
Structural Fabricator
Blacksmith
Heavyplate/Welding
Lagger
Welder/Fabricator/Machinist
Body Repairer
Motor dismantling
Labourer
Trainee Refrigeration Engineer
Chain repairer
Stainless Steel Fabricator

A minority of these activities do involve only a very narrow range of skills (e.g. some students' work was highly repetitive in for example, the manufacture of ducting), but the vast majority, in terms of students if not of occupations, would be expected to be able to do a fairly wide range of work and hence have to learn a corresponding range of skills. Indeed several of the very small companies made the point that because of the nature of the trade and the fact that they would take whatever work they could get meant that they wanted their apprentice to be able to perform a very wide range of tasks.

139. Overall then, the TRADEC Fabrication & Joining Scheme clearly meets a need, and will continue to do so, but its niche is in the main among those who do see themselves as attaining a recognised status/career position in the trade. It has had far less success (but nevertheless has made some slight inroads) with operators who require little training. Its major success has been with those that do require fairly substantial training, but who are not actually receiving it on a systematic or formalized basis (i.e. the small companies who, if TRADEC did not exist, would rely mainly on "sitting with Nellie" to meet their training needs). It should be noted that the number who would receive full EITB training if TRADEC did not exist in this area is very small, compared with the massive number who would otherwise receive no formal training at all. As with the other schemes, TRADEC does reach a much narrower population than that suggested in the YHAFHE publication.

Mechanical Trades Principles

140. As with the Fabrication & Joining scheme, the levels of skill

required in the jobs of the participants were often much nearer that of the craftsman than of the basic operator. However, greater variations occurred in the way in which the scheme was used, and in the occupational characteristics of the participants, than in any other scheme. There were four main categories of participant: (1) mainstream' skilled apprentices (fitters, turners, toolmakers etc.); (2) those in specialist occupations which may be highly skilled but in a comparatively narrow area (e.g. flute grinder, surgical fitter, press setter etc.); (3) those not directly involved in mechanical engineering but for whom an appreciation of M T P may be useful; (4) those without jobs (e.g. on work experience) but who hoped to gain from an appreciation of Mechanical Trades Principles, and perhaps use it as a 'springboard' for obtaining a job in mechanical engineering.

The participating colleges differed in how they saw their main 'target' audience for M T P in relation to these categories.

141. Category 1: 'Mainstream' skilled apprentices:
Some colleges saw this group as their main audience. Some saw M T P as more or less a straight replacement for the old 'Mechanical Engineering Craft Practice' course. The companies involved were usually either small ones, who felt they could not support first year off-the-job training and subsequent module training, or else larger ones who preferred the day-release mode complemented with training at the workplace, rather than in a completely separate training environment. Indeed that this was seen as a different route to the same and was sometimes strongly emphasized - it was not viewed as a course aimed at a different occupational stratum. This was made clear in several ways. Firstly, one company which recruited apprentice fitters made the decision concerning the route to be followed, according to supervision, assessment of which course would best suit each individual apprentice. Secondly, the scheme was often seen as part of a 4-year training period in which a City and Guilds Certificate was the ultimate goal.

142. The extent to which this group was seen as a legitimate target varied according to the attitudes of departments as a whole, and an almost full range of responses could be demonstrated in the region. At one extreme was College J, which saw TRADEC as either or both i subverting existing courses and ii bringing in groups 'below' those normally found in F.E. and hence thought to be more likely to be ill-disciplined etc. In this context not only all of this category, but any from category 2 also, were encouraged to take existing craft courses. This meant, by necessity, that those running M T P at Doncaster had to look for their clients in category 3 (those not directly involved in mechanical engineering). In College L the recruitment of this group (fitter-turners etc.) was seen as legitimate, but only the first stage of M T P was offered, after which the learners transferred to City and Guilds Craft Studies Courses. Not only was M T P regarded as a 'feeder' course, here, but it was also considered possible to run it only if the group represented a very narrow range of occupations. In effect, where TRADEC is used in this way it is as an expedient, and it is clear that the wider ramifications of the TRADEC philosophy are missed. College A provides an example of a College recruiting heavily in this group, and the support of several large companies who were strong believers in the value of F.E., and who were willing to let their apprentices attend college for at least 4 years meant that the college (and the students) tended also to adopt this longer perspective. Although the TRADEC approach is

embraced, it is with one eye on what will be required in the subsequent year on the City & Guilds course. In these circumstances, TRADEC is viewed as just 'another course', broadly similar to many others.

143. Finally, there are colleges (B, C & G for example,) which have substantial intakes and have put a great deal of effort into recruitment of those learners in category 2, highly skilled in a narrow range. Obviously there is some degree of overlap between categories 1 and 2 and indeed some companies who in other circumstances might have sent apprentices on craft courses opt for the M T P course. However it is clear that these colleges do not see those in category 1 as their prime 'target' group for M T P, and this is in accord with stated YHAFHE policy. In these colleges, some students to go on to follow craft courses, but this transfer is not seen as the raison d'être for M T P in the way it is in some other colleges. The TRADEC course and qualifications is seen to stand in its own right. This may be attributed to the total numbers of students doing Engineering Zone schemes in these colleges, which have been high enough for TRADEC to achieve local recognition in its own right. Where recruitment has been much lower, for whatever reason, there has not been the same degree of confidence placed in TRADEC by either the college or the local employers.

144. Category 2: Specialist Occupations
As has just been partly outlined above, some colleges make this group their 'key' target. These colleges also tend to have the largest number of students. To some extent, this is due to their larger catchment areas, but it would also seem to be associated with the degree of enthusiasm with which the TRADEC philosophy is embraced, since to acknowledge this group as the main target will also mean the adoption of a much more active recruitment policy. Many of the potential students would not otherwise attend college.

145. Some of these occupations are highly skilled, but in a relatively narrow range. However, in terms of how these occupations are viewed by the local community, they may be regarded as skilled and certainly would be (or at least have been in the past) viewed in career terms in a similar way to the traditional craftsman. Examples of these types of occupations include flute grinder; umbrella marker; tool cutter; cylindrical grinder; instrument maker; optical technician; key cutter; and lock repairer; spring-maker. The largest group is comprised of those in occupations which traditionally have been regarded as below the multi-skilled craftsman but above the level of the capstan-operator. These include setter-operators, millers and turners. However, the majority in this group were often not identified by other than generic labels such as 'apprentice engineer', 'craft apprentice', 'maintenance apprentice', 'machinist' etc. Although from such vague lables it was possible to argue for their inclusion in a number of different categories, in practice the college and the company were normally able to make it clear that the job did fall in the area close to the blurred craft-operator boundary, as with Fabrication & Joining Schemes. It was apparent that there were very few doing the lower-level operator jobs, although sometimes work-experience trainees performed these roles.*

146. Category 3: Those not directly involved in mechanical engineering. With the exception of College J, which devoted a whole course to this type of group, it was very rare for there to be anyone on an M T P scheme who was not clearly in the mechanical engineering field. Instances

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* See para 147

occurred of enrolment on M T P in order to gain a general appreciation of mechanical engineering, of a quality controller, a trainee accountant, trainees from a production planning department, trainees salesmen etc. However, these were isolated examples. The scheme offered by College J differed from other M T P courses, in that it was run solely for a year (with no link to other courses) and the emphasis was described by the Course Tutor as very much oriented towards UVP philosophy. By this it was meant that the acquisition of mechanical skills was seen as secondary to the development of confidence, team-work and improving communications. This was seen as more appropriate to the participants, who were operators, needing no more than an appreciation of mechanical processes. It is perhaps unrealistic to expect to be able to get a scheme of this nature off the ground, unless the bulk of the trainees come from one or two large companies. However, in these circumstances there is the advantage that the scheme can be more easily tailored to meet the particular requirements of the companies. For example, it was noticeable that there was a high degree of liaison with the companies in the scheme under discussion. There was also a substantial incompany element in contrast with many other schemes.* However, while this demonstrates that this market can be tapped, in terms of overall numbers it represents a very small proportion. It may also be that a UVP scheme in an area other than mechanical engineering may be more appropriate e.g. glass and ceramics; rubber and plastics etc.

147. Category 4: Those without jobs:
While TRADEC was developed for those with a job, changing economic circumstances and prospects for employment has meant that TRADEC has started to look at this potentially very large population.** The M T P schemes accommodate two major groups who do not have a job. Firstly, those made redundant during the course. These learners can continue on the course (and proceed to subsequent stages) and the college will in most cases set up projects etc. for them. This creates few problems, because the students can draw on their previous experience of work, and, one hopes, readily ascertain the relevance of what they are doing at college. Secondly there are those who are unemployed when they start the course. Increasing numbers of these students have been enrolling on TRADEC courses, particularly if they are on Work Experience schemes. It is clear that these groups can use the TRADEC course as a 'springboard' to improve their job prospects. However, these are potential conflicts of interest between those with and those without permanent employment.+

148. Overall then, the conclusions about the range and level of occupations for which M T P is currently catering are broadly the same as those reached about FTP. That is (i) M T P is a useful means for learners to develop mechanical skills. However, this group is much more circumscribed than YHAFHE literature might suggest: the majority are in occupations popularly described as 'skilled', and they are much nearer to the job of craftsman than basic operator. (ii) Although TRADEC has only rarely been taken by those in more limited operator jobs, it has been shown that it can successfully be used for these groups, where their participation can be secured. If provision for young people in this band, within the Engineering Zone, increases to the extent intended under the New Training Initiative, then TRADEC will clearly be a potential vehicle for their vocational preparation. (iii) Similarly, with regard to the needs for a practically-based course in Mechanical Engineering, for those who are not in full-time employment, TRADEC has shown that it has a role to play. Again, however, clarification of the type of role will probably have to await policy developments elsewhere.

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* See paras 214 - 219

** See para 51

+ See para 231 - 261

149. TRADEC is described by its proponents as an infinitely adaptive learning system. In the context just described, TRADEC has a number of possible roles it can fulfill. What is not so clear is whether it can fulfill all of them within its present structure. For example, while a more broadly-based system of personal development may be appropriate for groups 2 and 3, the need for what is effectively quite highly developed skills training also exists (group 1). However, it is not an insoluble dilemma, but it would appear that policy decisions are required concerning the scope and intended applications of the scheme, and the means by which the system's satisfactory performance in respect of any particular group is to be achieved and ensured.

Distribution and Consumer Trades Principles

150. The DCTP scheme has a target population of all occupations in the Business Zone of manufacturing and distribution; wholesaling and distribution; retailing non-perishables; retailing perishables and retailing services. However, in practice, the overwhelming majority of learners participating in the schemes have been sales assistants, directly involved in retailing. As all students do the same basic course for Stages 1 and 2, making allowance for different specializations is relatively simple, especially as those from the backgrounds other than standard retailing are unlikely to do Stage 3. Even on Stage 1 & 2 those from backgrounds in e.g. warehousing; wholesaling; vending machine sales and service, were rare enough to make generalizations about these difficult. It was noted that students from these areas did complain that that scheme was geared much more to those directly involved in sales to customers.

151. The schemes have generally been very successful in maintaining viability, and in reaching audiences who previously were unlikely to have attended college. Within the colleges themselves, it was widely acknowledge that the DITB had played an important facilitating role. At a regional level this support continued even when officially the support was withdrawn at national level. Another important influence was the provision of grants to the companies - which in some cases were quite substantial, as the companies were expected to undertake in-company training to a greater extent than was apparent in other schemes. An adaptation of Stage 1 has been used as an 'Introduction to Distribution' short industrial course for the unemployed. The scheme has also been undertaken by those on Work Experience schemes. There have also been several instances where one company has been able to 'fill' a complete scheme, rendering it much easier to adapt the course to the company's requirements.

152. Overall then, DCTP Stages 1 & 2 have operated successfully throughout the region in terms of being able to reach part of the scheme's target audience. However, its very success in recruiting junior staff of supermarkets, stores and smaller retail shops has meant that some of the other areas have remained relatively untouched. Stage 3 of DCTP is currently undergoing change at Writing Level. Stage 3, as currently constructed, intends to 'serve as introduction to management for first-line supervisors or junior managers'. As such its target audience is much narrower than for Stages 1 & 2. This narrowness is now seen as contrary to the intentions of the scheme, leading to the reconstruction currently underway.* In practice there were some cases where the expected level of entry was forthcoming, but there were other cases where TRADEC 3

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* The written scheme remains unpublished at the time of writing, for this reason.

was used more as a follow-on from TRADEC 2, rather than because it was appropriate for the person at that particular stage in their career development. This sometimes created problems of relevance in that it was often difficult to relate the scheme to the actual work they did. Some clear anomalies were in evidence. Learners from one company which specifically recruited junior management trainees, gave them a substantial in-company training and took a great interest to see that what they were taught on DCTP fitted what the company wanted, were enrolled in Stage 1 and received only Stage 1 certificates. Their projects were also of a quality and depth which made comparison with other apparently equivalent schemes a little odd.

153. The three stages of DCTP would appear to fill successfully a 'gap' in the previous provision. However, once again the actual occupational spread is at this time much narrower than that envisaged. Another point worth noting is that there is a possible overlap in terms of target population both with Food and with Commercial Trades Principles in respect of those in clerical positions in retail organizations. Placement is most likely to be determined by which course is available.

154. The records of occupations of participants in 1981/82 DCTP schemes include the following:

Sales Assistant
Salesman
Clerk
Butchery Assistant
Waitress
Warehouse Assistant
Buyers Assistant
General Assistant
Management Trainee
Vending Machine Serviceman
Servicemen
Produce Assistant
Checkout Operator
Machinist.

Some of the categories may be overlapping or ambiguous, but even if all the other categories were considered as quite distinct from that of sales assistant, this category accounted for 75 per cent.

Commercial Trades Principles

155. Commercial schemes have so far run in only two colleges, with the pilot schemes put into operation in 1979-80, It is therefore, still very early days for this scheme. A further complication which arises in assessing its target is that of the predominance, at one of the colleges, of learners who have not been in permanent employment.

156. In College G, the last two Stage 1 schemes have had only a small minority of learners in permanent employment: 6 out of 17 in the 1980-81 scheme (and one of these was made redundant part way through the course) and 2 out of the 14 on the 1981-82 course. Leaving aside those who are unemployed and have no workplace anyway, those on 6 month Work Experience schemes were invariably assigned to general office duties/junior clerk.roles, this was also the level of occupation of most of those who were employed. The stated jobs included, general office duties; order processing; office junior; junior clerical etc. There were also a couple of perhaps marginally higher status jobs: clerk typist and invoice typist. The one occupation that did stand out was that of quality control technician. This example did afford an illustration of the potential flexibility of the TRADEC concept in that the learner coupled Commercial with Mechanical Trades Principles. The occupations of those on the scheme offered by College E reflected a similar position. Here, the

learners were predominantly 'low level' clerical workers (office juniors, shop assistants etc.) with the odd invidivual in receptionist or secretary positions.

157. It appears that Commercial schemes reflect an opposite situation from that of the engineering-based TRADEC schemes. The learners on these Commercial schemes have been, in the main, those performing 'low-level' jobs, which require minimal training, but with the odd individual whose job did have a higher skill content. This was precisely the type of market TRADEC sought to tap. However, the viability of these courses rested heavily on involving work experience and unemployed students. Thus the scheme has not yet been able to build a firm base among those with continuing or full-time jobs. The nature of the actual population on the schemes also means that much greater emphasis is put on UVP-type aims of 'giving young people a better start in working life by helping to equip them with certain basic job skills and knowledge and to develop the personal skills needed at work and in adult life generally'. As such the course is seen more in terms of an introduction to working life rather than the acquisition of skills of a similar type and level to those on engineering-based TRADEC schemes. Indeed as both the unemployed learners and those on Work Experience schemes are likely to be following other courses at college, it is more appropriate that they are given a broader introduction than specific job-skills which may not be required in their eventual employment.

158. Overall then, Commercial Trades Principles has made only a very limited impact in recruiting employed young people in the clerical field. It has been shown that the content and general approach associated with TRADEC can be adapted for those who are unemployed or on Work Experience schemes, but this does mean the course is viewed as more of a foundation course, with a consequent lessening in the importance of the link between the learner and a particular workplace and job.

Food Trades Principles

159. Firstly, one of the colleges which ran this scheme considered it 'absolutely impossible' to operate a scheme for those directly involved in food preparation and those for whom this constitutes a relatively insignificant part of their work. This was because the whole scheme was effectively built around food preparation: potatoes, salads, sandwiches etc., rather than the more general processes: materials and supply; handling and storage etc. This Course Team thought that the scheme, as it operated, was generally applicable to the group of learners, which comprised a fish fryer, waitress, sales assistant in a bakers, trainee supervisor, but considered that, for example, the hotel receptionist should have been on a different course.

160. Another college operated the scheme according to different criteria, and, without getting involved in food practical, found that it could run a course on similar lines to the Distribution scheme, where the main aim was to improve communications, awareness etc. rather than to teach specific skills. This was more successful in attracting a wider range of occupations: nursing auxiliary, day porter, housekeeper etc. A scheme was also run which was aimed at trainee butchers. Therefore it would appear from limited experience available that a range of occupations can be embraced by Food Trades Principles, but that the

range on any particular course has to be internally consistent (i.e. all in food preparation; ancilliary support; etc.)

161. It should be remembered that the total numbers who have been on this scheme are low, that recruitment has been very difficult and no Stage 2 or 3 schemes have yet been run. However, what is clear is that although there is a very large overall potential market in this area, in practice the differences within it are so great so as to make it effectively a series of smaller discrete markets which need to be tackled separately. Overall then, Food T.P. does offer substantial flexibility, but it is a flexibility which will probably have to operate between courses rather than within them.

162. Two other points are worthy of note. Firstly, that all learners on Food schemes have been from either preparation and provision of food, or from sales and service. There have been no learners from the food supply industry or from food manufacture and processing. Secondly, there may be competing claims from different schemes on the same occupational groups. Thus butchery assistants, waitresses and food sales assistants have featured on both Food and Distribution and Consumer Trades Principles schemes. The key factor influencing the placement decision has so far been which course was available.

THE AGE CHARACTERISTICS OF PARTICIPANTS

163. The argument of YHAFHE concerning the inappropriateness of age specificity of TRADEC can be summarised as follows:

The occupations of the intended target population of TRADEC are those which do not, in respect of performance of the required task, require a foundation of lengthy training and preparation in adolescence. They can be entered with limited training at any age, and frequently young people and adults are engaged on similar tasks shortly after entry. The retraining and personal development needs of adults, on changing or preparing for changing roles, are similar in many respects to those of young people entering them for the first time. The provision for this occupational group should not therefore be age specific, it is argued, and the aim is the creation of a system not only able to cater for a wide range of occupations, but also for a wide range of ages.

164. The analysis of the age characteristics of the total population of participants in 1980/81 and a more detailed breakdown for schemes surveyed in 1981/82 showed clearly the predominance of 16-19s. The ages of the participants in 1981/82 ranged from 16 to 28 years. The vast majority (91.3%) were in 16-19 band, over all schemes surveyed, and register sheets recorded a similar proportion over all operational schemes. There was little variation between schemes in age range or modal age. The Food Trades Principles Scheme of College A had attracted an 'older' population; however the total numbers involved in this and the other Food Schemes which had operated in College E were insufficient for any longer term pattern of success in attracting older populations in this scheme to be identified. It was the view of the Course Tutor from College A that a larger pool existed of potential recruits of older employees in the Food Industry initially untrained but subsequently requiring training for low level supervisory roles.

165. The overwhelming predominance of the 16-19 age group can be attributed to the main thrust of 'selling' by the colleges. Few college staff undertaking industrial liaison activities had given emphasis to the retraining role of TRADEC in their approaches to employers, claiming that few employers had any interest in schemes involving release of older workers where such retraining as was required could take place quickly and easily in-company, whereas most anticipated approaches in respect of the wider work preparation of their young employees. This perception of employers' priorities was borne out in employer responses to questions of suitability of TRADEC for the older worker. There is little evidence, based on experience, of the suitability of TRADEC for older workers. The potential of the TRADEC system for older workers is not put seriously in question by the absence of any significant proportion of older participants. Both the approaches, in practice, to the presentation of TRADEC to employers and the intensity of recruitment activity in respect of older age ranges would need substantially to be improved for conclusions to be drawn about the ability of the scheme to attract and maintain the involvement of adult workers. The UVP association clearly weights the scheme towards the 16-19s, as does the wider identification with 'Vocational Preparation'. There was some suggestion that there was greater scope in the short term for involvement of older workers in the non-engineering areas with little tradition of training and fewer entrenched views concerning types and functions of training. A training officer in fabrication company seeing TRADEC as essentially a Craft Practice 'replacement' would be expected to be slower to perceive it as a potential vehicle for retraining and recruitment of older workers than might his counterpart in a shop, with little past involvement or experience in courses of further education or training.

EDUCATIONAL CHARACTERISTICS OF PARTICIPANTS.

166. The wide range of abilities as reflected by past attainment which have been asserted to exist in the TRADEC population, (YHAFHE: 1982) have been demonstrated in the population participating in operational schemes. While past attainment reflects, to some degree, the range of ability it is recognised that ability and potential does not necessarily equate with attainment. Table 3.1 presents the pattern of general education qualifications held by the population of participants in surveyed schems in 1981/82. The general educational qualifications held ranged from nil to A level, the modal level being ≥3CSE,1,2,3; <4O's,1,2,3; in all schemes surveyed. Other vocational qualifications, widely varied in nature, were held by approximately 15 per cent of leavers.*

TABLE 3.1 GENERAL EDUCATIONAL QUALIFICATIONS HELD (Surveyed schemes)

Qualifications	%
No qualifications held	17
< 3 CSEs gd 1,2,3	16
≥ 3 CSEs gd 1,2,3, < 4 Os gd 1,2,3,	54
≥ 4 Os gd 1,2,3	13
TOTAL	100%

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* See para 175

PLACEMENT

167. The process of placement of a learner in a TRADEC scheme varies considerably between schemes, and, to some degree, between colleges. Three means of placement, or allocation of learners to courses, may be found, a combination of which may operate in respect of any particular scheme.

(a) Assessments of young people presenting themselves for enrolment, in terms of their suitability for the different courses available. Here, assignment of those with complementary training opportunities inadequate for entry to City and Guilds Craft Studies, is frequently found.

(b) Direct recruitment for TRADEC schemes of those in the former 'non-participant' category.

(c) Assignment on request from learners afforded opportunities for release by employers or in association with Work Experience or similar programmes to schemes of their choice (subject to the college's assessment of suitability).

168. Substantial differences occur in the approaches which predominate, between schemes. Placement on TRADEC Courses by means (a) is frequently found in MTP and FJTP schemes, combined with direct recruitment under (b). In Distribution and Commercial Trades Principles schemes, direct recruitment undertaken specifically for the schemes predominates. In Commercial Trades Principles there is some evidence of student preference (c) accounting for a significant proportion of placements, particularly among WEEPs students. The numbers here are, however, too small for conclusions to be drawn.

169. When questioned concerning their experience of the process of placement to their TRADEC scheme, 19 per cent of TRADEC participants surveyed claimed to have asked for release for Further Education. One quarter of these asked specifically for a TRADEC scheme. The majority considered that they had simply been 'sent to Tech' by their employers and the rationale of their placement on TRADEC was neither known nor, case study interviews revealed, an issue which concerned them. It appeared that of such cases in which discussion involving the learner concerning placement had occurred, the majority were in the Commercial and Distribution and Consumer Schemes. Responses obtained from companies surveyed (N = 133) also revealed that in 90 per cent of responding compabies in MTP and FJTP schemes, the employers viewed placement as the responsibility of the college. As far as they were concerned they simply 'sent their lads to Tech' a finding compatible with that of their employees perceptions. In 52 cases employers were quite clear about the category of workers released for TRADEC, and differentiated the scheme clearly from those courses adopted for other categories of worker. The majority (30) of these were located in the non-engineering areas. In general, the clearer perception of TRADEC, its target and its distinctive features among company personnel associated with the non-engineering schemes, may be considered to be another example of the greater opportunities for establishing the scheme in its intended form within those areas with few established traditions of training, and, also, of the outcomes of the more intensive liaison activity which is frequently associated with the introduction of schemes in these areas.

PROGRESSION

170. The importance of progression within the TRADEC system and between TRADEC and other forms of provision, in view of the unfolding national strategy for the development of Vocational Preparation and its status and location in relation to other 'mainstream' or 'conventional' FE provisions, has been discussed in TRADEC I .* At the level of the individual participant, discovering new aptitudes and interest, finding himself faced with a change of direction, by choice or by necessity, or wishing to proceed further in the process of self-development embarked upon, the existence of opportunities for progression are vital. These may be opportunities to progress within TRADEC, to feed from the various stages of TRADEC into other avenues, or to move from other forms of provision into TRADEC with some degree of continuity and with appropriate recognition of past attainment. The existence of such routes is equally important to the company committed to development of its training systems and of its personnel.

171. 'Progression within the TRADEC system, between stages, is intended to provide for 'a progression of interests and experience' and not a progression from initial training to supervision. Rather than increased academic difficulty, it is claimed, the stages represent opportunities to experience a wider range of topics undertaken in greater detail, at the same time remaining self contained. In respect of progression to and from other forms of provision, the TRADEC position is that TRADEC is not appropriately regarded as primarily a preparation for other courses.

> 'If TRADEC schemes were no more than a preparation for entry to the courses, they would represent failure to those who did not progress'(YHAFHE 1982:41)

Rather, it is argued, opportunities should be afforded for those interested and equipped to do so, to progress/transfer to other courses at whatever stage is judged suitable. To this end counselling and guidance should be provided for learners, stressing again the

> 'importance to establish, in arranging progression for some, that this does not imply failure or inferiority in in others' (YHAFHE 1982:42)

172. The issue of progression from other courses to TRADEC is not dealt with explicitly. Instances are occurring of learners 'blocked' in terms of progression in conventional courses, transferring into Stage 2 TRADEC. The position of remaining 'free standing' while acting as a base/preparation for transfer for those able, raises many issues outlined in Document 1 and discussed further in Chapter 11** The progression patterns and intentions of participants in operational schemes reveal several established routes, and a plethora of individual variations.

173. In some schemes in the engineering areas, progression is built in as the norm for high proportions of the participants, usually in Part 2 Year 2 of City and Guilds Craft Studies following the 3 year TRADEC experience. In this system, clearly the 3 Stages of TRADEC are considered equivalent to 2 years C & G Craft Studies with the full off-the-job and in-company complementary training. In other cases, feed into City and Guilds takes place, as a matter of course, for the entire group, following Stage 1 or Stage 2, no further TRADEC stages

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* See TRADEC I paras 22-35

** See paras 749 - 753

being offered (e.g.Colleges AFJTP). In neither case are the concepts of progression outlined above apparent. Transfer from City and Guilds for those 'struggling' on City and Guilds occurs periodically in all Engineering schemes. In the Commercial and Distribution areas, progression from BEC General into TRADEC Stage 2 is not uncommon for those achieving a Pass in BEC General, with a desire to proceed, having their company's support for further learning, but finding themselves with no way forward by that route.

174. In all schemes there are instances of progression to and from TRADEC to a variety of other courses according to individual needs, aptitudes and circumstances. (e.g. the College G MTP Scheme had occasionally passed 'very able' learners through to TEC schemes). Within TRADEC, progression through all three stages is undertaken by approximately 60 per cent of participants in the engineering fields. In Distribution and Consumer Schemes, approximately 45 per cent proceed through Stages 1 - 2 and in many cases, a combined 1 - 2 'end-on' scheme is offered in parallel with a freestanding Stage 1 scheme, to meet the substantial demand for this immediate progression within the space of one academic year. Approximately 29 per cent proceed to Stage 3 which currently remains orientated strongly towards supervision. Commercial Trades Principles, available at Stages 1 & 2 only at the time of investigation, with Stage II in its pilot stage, gave indications of a demand for progression, and for Stage 2 direct entry, from former BEC participants. In Food schemes, however, no Stage 2 had become established, although the scheme had been piloted with 3 groups in 1980. The Course Tutor of the College A Scheme expressed serious doubts about the existence of a market and, therefore, of a demand for Stages beyond Stage 1, and considered that a very large number of schemes would have to be run at this Stage before a 'pool' for a viable Stage 2 scheme could be established.* The development is insufficiently advanced for judgments to be made concerning progresaion, although the general difficulties in recruitment to the scheme, and the characteristics and needs of recruits and employers give some support to the above view.

175. The survey and case study data provided some further insights into progression patterns and intentions.

Past courses/future intentions of learners.

Past Courses:

Twenty per cent of respondents (84) had attended college for other courses, apart from TRADEC, since leaving school.

Sixty-four of these actually completed the course, (the remainder presumably reflecting those who transferred onto TRADEC after finding another course unsuitable). There was a sprinkling of students who had completed BEC, TEC, RSA, etc., and 26 (four who had completed Part II year 2). The major reason for transfer seemed to be experience of 'struggling' with the previous course in association with a previous job, or spell on work experience, or had attended evening classes. If the previous course was in a similar area, the students could come in at a later stage (usually Stage 2), although this was comparatively rare. Some of the previous courses reflected a change in career direction for the learners, (e.g. one student doing Distribution T.P. Stage 3 , was in his second year on a full-time TEC Diploma, when he accepted a permanent job at a department store where he had been working on Saturdays).

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* See Case Study 5, Para 648.

176. With one exception, there were no colleges or schemes where more than a few had done previous courses. Even where previous courses had been followed, these tended to be a mix rather than a consistent pattern, e.g., plumbing, motor vehicle technicians, basic engineering craft studies, etc.). The one exception was the DCTP scheme of College F, where a group of six learners from one company transferred onto Stage 2 after finding BEC General largely unrelated to their own work. However, it is clear that for the majority of learners, TRADEC is their first experience of Further Education. Of those who have done previous courses, there is no consistent or established pattern whereby any particular course usually precedes a TRADEC course.

177. Document 1 and Chapter 1 present the essential features of the strategy of the TRADEC system and the curriculum structure and methodology arising from it. This Chapter describes the translation of that structure and methodology into operational schemes, examines variations between schemes and the associated patterns of strength and weakness, both in terms of the perceptions of parties to the schemes, and in comparison with the data compiled and experience gained in the operation of alternative curriculum models and strategies. Particular attention is given to the distinctive curriculum features, and the extent to which these, in design and implementation, are able to meet the criteria developed for schemes falling under the Vocational Preparation 'umbrella'.

178. Considerable variation was found, between schemes, in the interpretation of the methodology and approaches to its implementation which they represented. In some cases, interpretation and implementation diverged considerably from the intended operation of system. In many respects, in common with other developments in Vocational Preparation, variations in implementation, and, where it occurred, divergence from its intended operation were attributable, in part at least, to factors beyond the system itself, including staff and employer attitudes, and institutional constraints. Where divergence from intended operation occurs substantially and widely, however, the system too must be examined not only in terms of the effectiveness of its delivery, monitoring and 'feedback' mechanisms, but also in terms of its realism. To what extent can the possibilities of substantial divergence from the requirements and methodology of the system be reduced, within the operating constraints, and without impeding the scope for variation and adaptability? These issues are of importance here, and are developed further in Chapter 7.*

'NEGOTIATION' IN CURRICULUM IMPLEMENTATION

179. The notion of the '3-way partnership' and the triangular relationship between employer, college and learner is fundamental to the TRADEC system. Crucial to the operation of any Vocational Preparation Scheme is the way in which this 'partnership' or negotiation principle is translated into practice; in particular, which processes and practices are adopted to ensure that the exchange between the parties is one appropriate to partnership, and that 'negotiation', if it occurs, takes place from positions of comparable strength. The TRADEC system requires the establishment of the 'triangular relationship' as the basis for construction of a set of learning experiences negotiated within the scheme framework, to meet the needs both of the users (companies) and consumers (workers) and to fulfill the educational functions of the providing institution. Thereby its potential for success in the achievement of a negotiated programme may be considered greater than those models in which negotiating systems are superimposed on, or introduced post-hoc into conventional style schemes. However systems and devices for achieving satisfactory outcomes to real, as opposed to 'illusory', negotiation for their target groups are still in their infancy.

180. In operational TRADEC schemes examined, the triangular relationships, where they existed, tended to be based on limited consultation rather than 'negotiation', in the full sense in which that term is currently used within the wider 'Vocational Preparation' development.

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* See para 475

The schemes do not, in general, adopt instruments such as learning agendas or similar tangible bases for, and expressions of, negotiations although there would be space for them to do so within the scheme framework without distorting intended system operation. While there was, in most schemes investigated, some impact on the learning programme both of employer preferences and requirements and of learner choice, a deeper sense of 'three-way partnership', and real negotiation was present in very few schemes. Liaison activity between participating companies and the college certainly takes place more frequently and with greater intensity in the 'typical' TRADEC scheme, than does liaison in respect of its conventional counterparts,a point commented on by a significant proportion of company personnel providing responses to the survey.* Although in 'good' conventional schemes, frequent and purposeful liaison will be undertaken, it is apparent that the status of liaison as a fundemental requirement of the launching and operation of the scheme in the first instance, produces a greater intensity of liaison activity than would otherwise be the case in a conventional scheme. In some long established schemes, carrying a 'core' of continuing employers, however, there is evidence of liaison activity declining progressively, with an accompanying ossification of curriculum content and therefore fundamental departure from the essence of the TRADEC approach.

181. A frequency of one to two visits to each participating company during the course of a scheme was the liaison frequency most often reported by Course Tutors. In most cases, this was broadly compatible with the reports of liaison given by company respondents. A substantial proportion, however, reported three or four visits to each company, per scheme. It was noted that the number of companies involved in a particular scheme is an important factor in frequency of liaison. The number of 'user' companies ranges from 1 to 30 + in some Fabrication and Joining schemes. Not only does the number of participating companies influence frequency of liaison; it also affects 'negotiating space', which it necessarily limits, therefore limiting also the extent of alignment to company and industrial needs, even given the flexibility and scope for individualisation offered by the project features of the curriculum. In most cases liaison visits are devoted to securing and maintaining recruitment to the scheme, discussion of project work and 'airing' of users' satisfaction/dissatisfaction in respect of alignment, learner progress etc. Contact is most often established between the Course Tutor and Training Officer or Works Manager. In some Engineering schemes it is the subsequently the Foreman or Chargehand who becomes the main point of contact for securing support and involvement from the workplace.** The picture then is essentially one of 'exchange' and familiarization with needs, between company and college staff.

182. In the case study scheme Course Tutors were invited to keep logs of liaison activities and the purposes for which it was undertaken. The logs kept for the College C Fabrication and Joining Scheme (27 companies) showed a total of 32 hours engaged in company visits, of which approximately one third was spent on recruitment, one third on discussion of learners' progress, requirements and any difficulties, and one third on 'general discussion' of course matters. Six companies had also made visits to the College. The logs kept for the College F Distribution and Consumer case study schemes (18 companies) showed a total of 32 hours of visits. Approximately two-thirds of these were devoted to 'course development' and one-third to recruitment. A

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* See Chapter 6

** In some schemes, cooperation at this level was seen as a key to learner motivation - 'they know I know the gaffer'.

substantial amount of time had also ben spent in telephone contact. Among schemes surveyed and case studied, several instances emerged of liaison for purposes of course development and review of trainees being undertaken only with 'core' employers. Some employers had clearly never been visited or engaged in any substantial liaison over the scheme. This state of affairs existed in schemes with large numbers of companies involved, and can clearly be attributed to lack of time of staff, and the exercise of priorities operating against the pursuit of the employer with little interest in participating in any active way. These cases accounted for less than 10 per cent of companies in the schemes selected for study.

183. The extent of learner participation in the discussion of emphasis and orientations required for scheme content (required for alignment of the framework to individual needs) was limited to some consultation in selection of project work in most schemes surveyed and case studied. The outcome of low learner participation may be reflected in the perceptions of relevance discussed in Chapter 5.* Course Tutors in 15 of the 19 schemes surveyed, on questioning about the extent of learner involvement and influence in the triangular relationship considered that this was the weakest point of the operation of the partnership. One considered very strongly that TRADEC had much less scope for real learner involvement than did UVP, because of the relative inflexibility of curriculum.**

184. The learner, while clearly part of the partnership by virtue of his participation in the learning system was frequently seen to be 'on the fringes' in matters of discussion and decision on scheme content and activities, although a higher degree of learner input was encouraged and achieved in the project element of the scheme. In the two schemes in which Course Tutors considered learner involvement to be generally high (DCTP, College D and FJTP, College S) different factors were seen to be responsible. The success was attributed, in the first instance, to the use of planned group sessions at an early stage of the course for discussion of options and needs, found to be particularly effective at Stage 2 & 3, and in the second case to the high intensity and frequency of liaison and contact between the companies and colleges in respect of the new scheme. Participating employers had been asked to talk to their young employees about their needs and preferences, as the basis for discussions with the college. Learner responses from both schemes supported the Course Tutors' assertions that learner input had been catered for and achieved. In other cases there was evidence of too much reliance on an assumption that the process of general familiarization with the learner will provide insights sufficient to secure alignment of the curriculum with their needs. The importance of the sensitivity and continuing receptiveness of the teacher for the manifest, if not expressed, needs of the learner should not however be underestimated.

185. The case study investigations revealed a picture broadly compatible with the Course Tutors' assessments. Little or no planned learner involvement in determining general scheme orientations and emphasis was in evidence in four of the five schemes, but a high degree of involvement in selection or determination of the project characterised all schemes, particularly at Stages 2 and 3. Only in the case of the Food Scheme were opportunities for selection of priorities and emphasis of the scheme given to students at the outset.

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* See paras 231 - 295

** See para 88

186. Table 4.1 presents the pattern of learner responses concerning the extent to which they were engaged in discussions leading to determination of scheme content. The large majority of learners in Engineering schemes, in responding to questions concerning the opportunities which they had been given to discuss their own ideas about what they should be learning, revealed little experience of being involved in such discussions, either in the college or in the company. and were often surprised by questions in this area, remarking that 'Its just a fixed syllabus, isn't it?'. However, more than half of the learners in Distribution and Commercial schemes reported that they had been afforded opportunities of this kind by college staff. In most cases the discussions had taken place as a group rather than individually. A higher level of discussion within the Company was also characteristic of these schemes, with the emphasis on individual discussions between learners and company personnel, in this context.

187. These findings were reinforced by the more detailed investigations of learner involvement which took place in respect of the case study Schemes. In the two Engineering Zone schemes, the learners had little or no sense of the operation of the 'partnership' or 'triangular relationship' principle in the alignment of the scheme to their needs. The substantial proportions who commented on the lack of application of scheme to their day-to-day work, also said they were not aware of having been given any opportunities to voice their particular requirements in respect of their jobs, except in some instances, in their project work. It is important in interpretation of data of this kind, to remember that ideas of involvement in determination of course content are frequently new ideas to young people who have recently emerged from initial schooling, and may therefore not be aware of opportunities which do in reality exist. Even allowing for effects of past experience, the data taken together indicates that the learner involvement in the operational schemes rarely extends beyond the existence of a degree of learner choice, and, in the case of the Business Zone schemes, collective expressions of preference.

188. It should be noted, that the options for choice are far wider than those found in many conventional courses being based in most cases on widely differentiated experience rather than set projects or limited ranges of topics. There were some indications of 'fall-off' in degree of learner choice as schemes progressed and became established. As Course Tutors became more familiar with jobs undertaken and requirements of the regular company users, the drop in liaison activity already noted was sometmes accompanied by the increased use of stereotyped sets of 'set projects', a phenomenon warned against in scheme guidelines.

189. In respect of major projects the higher learner involvement achieved was perhaps afforded by the more tangible nature of the discussion - a point which reinforces the suggestion that the learning contract or similar approach might provide a more tangible base of learner involvement at the start of the scheme, as well as an instrument for monitoring, assessment and feedback.* The majority of case study learners had had an involvement in selection of the project. In all schemes bar Richmond, companies had also been involved in the selection process, to varying degrees. This seemed to be an important factor in motivation towards project work which was uniformly high across schemes.

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* See FEU 1981: 12

TABLE 4.1 LEARNER REPORTS OF INVOLVEMENT IN DISCUSSION OF SCHEME CONTENT

	MTP			FJTP			DCTP			CTP			FOOD TP		
	N = 143	In a Group	As an individual	N = 167	In a group	As an individual	N = 95	In a group	As an individual	N = 25	In a group	As an individual	N = 5	In a Group	As an individual
Had opportunities to discuss ideas about what he/she should be learning															
(a) with college tutors	22% 31	18	12	39% 65	47	16	53% 50	41	8	80% 20	16	4	60% 3	3	-
(b) with company training/ supervisory staff	24% 33	10	23	24% 38	6	27	38% 33	8	23	32% 8	1	7	(100%) 4	0	4

190. While the TRADEC model certainly admits opportunities for real learner involvement, approaches for achieving this successfully within the TRADEC system need to be examined and developed. It has already been noted that exchange between the Course Tutor and company personnel was greater in TRADEC than in conventional courses operating in parallel Certainly company responses to the survey indicated a welcoming of improved contact with the Colleges brought by the introduction of TRADEC.* 'He came down here and has spent time finding out what we do - we never used to see them from one year to the next before' was a typical comment from an employer formerly engaged in sending apprentices to City & Guilds courses. This stance was frequently counterbalanced though, by the rider that as far as the actual course was concerned, they were happy to leave it to the college and preferred it that way, given that the college knew what their business and needs were. Working partnerships were too time consuming!

191. The extent to which the improved contact brought with it the desired adaptation to the local and individual company needs is difficult to assess. However, where good liaison existed it was possible to identify specific instances of successful alignment to characteristic company needs through effective operation of the working partnership principle.** How far these successful alignments were a product of the TRADEC system, and how far they could have occurred in the context of conventional courses, given good contact and liaison is questionable, but there is little doubt that the improved liaison which is essential to the operation of a TRADEC scheme does produce greater opportunities for local adaptation and alignment to needs. The extent to which the opportunities are exploited depends on a range of factors, not least staff commitment and expertise.

192. Course Tutors were almost all of the view that a 'working partnership' with companies was achievable with some companies and did exist to some degree in their own schemes. The extent and effectiveness of this was largely determined by the effort and expertise put into it, and the nature of the employers' involvement ranged from minimal involvement at the outset of a scheme, to full involvement, in a few cases, involving substantial contributions to company - based and college-based programmes, participation in industrial assessment and scheme writing groups.

193. The evidence suggest firstly that the system is capable, under certain conditions, of achieving full and effective partnership between college staff, learners and companies, resulting in satisfactory alignment to needs, and secondly that these conditions appear to be

(a) that the number of participating companies is small

(b) adequate liaison time and staffing

(c) full understanding/awareness of company personnel and learners of the nature, purposes and intentions of the scheme

(d) some element of incompany work or college based specialisation option

These aspects of the Schemes' operations are fully discussed in Chapters 5 & 6.

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* See para 180

** See the examples presented in paras 368 - 370 ; paras 380 - 381 , para 414

STRUCTURING AND SEQUENCING OF SCHEMES - CONTENT AND PROCESS

194. The translation into practice of the scheme structure and methedology was examined in operational schemes. In surveying schemes, variations in general approach and interpretation of scheme structure were noted. Case study investigations allowed detailed examination of programmes and their implementation in the classroom, workshop and company to take place. The processes of writing schemes, variations in the implementation of the scheme structure, and experience of the practitioner in attempting to implement the scheme are considered in this section. Issues of appropriateness and effectiveness both of the structure of the schemes and of the whole development strategy are discussed in Chapters 7, and 9.

195. The processes of the writing groups leading to the production of published schemes were examined. In the cases of the schemes completed and published the only data sources were the finished products and recall of the participants, since minutes of the groups were not recorded. In the case of those writing groups in existence and working on new stages and schemes at the time of the research, observation and interviews with the Chairman and selected participants served to shed light in their modus operandi. In many cases practitioners acting as Course Tutors to operational schemes within the colleges had, formerly, or currently, taken part in writing groups, and were therefore able to provide additional comment on their operation.

196. The scheme 'units' centre on the selection of 'topics' described as 'carefully chosen, carefully modulated technical topis' forming the rows of the area. The units and their constituent topics describe the content of the scheme selected and expressed as areas of information and understanding likely to be needed in whole or in part, whatever the combination of skill involved in the learner's specific occupation.

197. The existence of specified and assessable 'basic skills' which the course or scheme is intending to transmit has been identified as a key feature and subsequently adopted as a defining characteristic and criterion for acceptibility of programmes under the Vocational Preparation development. In examining the TRADEC schemes, both at the level of the writing process and in their implementation, the question of whether there existed an identifiable core of basic skills which the scheme was seeking to transmit was a key evaluation question.

198. The transfer or transmission of basic skills, in the sense used in (FEU,1981: 13), is implicit in the TRADEC model. The statement of methodology embodies references to the responsibility of the implementing colleges to seek and develop areas of skill and attitudes, within and outside the SLS component, which are clearly embodied in the Common Core and 'Basic Skills' models under development. TRADEC refers, in respect of project work, to the need for design to include aspects of life and social skills, the achievement of acceptable standards of performance and reliability, and attitudes of personal commitment and responsibility. (YHAFHE, 1982: 22). At the implementation level, in many instances, Course Tutors speak in general terms about the types of basic skills which are being developed in the learners, ranging from affective areas of confidence and maturity to skills of literacy and ability to communicate.

By observation, means by which these skills are developed can also be easily identified, e.g. written use of reports on practical projects, in developing written expression; role playing, with use of video, in developing confidence and understanding. In some instances, criterion-referenced testing is used in respect of basic skills in some parts of the course, usually in General Studies.

199. While the columns of the array are, it is stated, intended to 'indicate' teaching objectives of, e.g. 'providing information', 'bringing understanding', 'consolidating' in respect of the technical topics, there is no specification of learning objectives in the basic skills areas at design level. While the scheme may, in practice, represent the contextualized transmission of basic skills, the absence of specifications of basic skills objectives at design level, or of any requirement for their specification at college level, results in some instances, in the schemes' degenerating into little more than sets of loosely linked topics developed through a variety of teaching/learning modes with resulting difficulties in making any sensible assessment of progress in basic skills, other than the purely subjective.

200. The implications of this for prevocational courses are considerable. Whether the 60 per cent core is separate or developed through vocational areas specification of basic skills to be transferred, and the means by which they will be assessed, is essential. There is certainly potential for adaptation to meet this criterion of Vocational Preparation by making explicit the implicit objectives for groups within the Vocational Preparation band. This could support assessment considerably and would not, in the view of the researchers, distort the principles and methodology underpinning the TRADEC approach, or the application to other groups. The dangers of over-specification at the other extreme should be guarded against. Slavish adherence to highly specified, possibly unrealistic behavioural quality of processes, is all too frequently found in application of the 'objectives' model. It is to be expected that 'basic skills' will be a primary importance at Stage 1, giving way in importance, progressively, at Stages 2 and 3. While it is recognised that TRADEC seeks to meet many needs outside the Vocational Preparation area it seems that some alignment will be requred in respect of basic skills specifications for schemes seeking acceptability within that band of provision.

201. There are considerable variations in the interpretation and implementation of the 'tree' and 'array' structures and SLS guidelines into the week-by-week programmes and daily timetables of learners engaging in different stages of any given TRADEC scheme. Variations by virtue of special features and needs of the participating consumers and users, and of the industrial context, are intended, the accommodation of variations in need and context being a central feature of the system design. However variations clearly also occur by virtue of the interpretations, expectations, attitudes and experience which the teaching team bring to the scheme and by virtue of a variety of institutional constraints. Clear divergences between intended system interpretation and implementation and actual practice abound.

202. Case study investigations enabled close examination of the curriculum as experienced by the learners, to take place. Practice varies considerably, between those schemes which take the units in sequence and follow the lines of the array by allocating succeeding periods of the day's timetable to each element (supporting studies, operational outlines etc.); those schemes which integrate the supporting studies, operational outlines and group instructional practice elements in order to give basic theoretical understanding, while at the same time retaining their essential features in identifiable form; and those schemes which use the unit and array structure to identify themes which cut across the units themselves. These are then treated in ways consistent with the schemes intentions, but without retaining either their identifiable features or the structural links between them.

203. The translation of the tree and array into the daily timetable and week-by-week programme in the case study schemes is described fully in Chapter 10. These accounts are illustrative of the variety which occurs in practical implementation, and of the impact of the context of operation. More generally, the structure of the written scheme was translated into a working programme directly and with relatively little difficulty in the Engineering Zone schemes. In many of these schemes the day's timetable reflected the columns of the 'array', and in the week-by-week programme the content of the units could clearly be identified, although sequencing varied considerably. Few kept rigidly to the rows of the array in terms of topics.

204. In the MTP scheme offered in College J, the Course Tutor considered that the array, by its rigidity and overspecification of content, failed adequately to accommodate the curriculum processes which he considered educationally worthwhile and desirable. The personal development dimensions were, by contrast, under-specified in terms of aims and objectives both centrally and at college level, and the array acted as a constraint on those wishing, at college level, to develop, for example, ABC - type personal development aims within the curriculum. The structure progressively forced or led teaching towards practical details at the expense of personal development, he considered, particularly in respect of project work. Here he felt that the emphasis on 'producing pieces of metal' promulgated by some, if not all, moderators in the MTP field, severely reduced the scope for personal development through project work.

205. In the MTP scheme of College A the array had been found restrictive. Some topics which the college wished to include, and which met specific needs identified in discussion with students, had been omitted since they were not featured in the rows of the array. The flexible 'columns' did not afford opportunities, it was felt, for the introduction of new topic areas such as these, only for specialisations in the specified topics. The requirements of coverage of all 'rows' of the array for each unit meant an overloaded syllabus even with the flexibility for the reduction of time spent on some units according to need. The spread of needs within the group necessitated coverage of some substance for all topics with resulting rigidity and superficiality. In the College G MTP scheme, some topics were missed out (despite specification) but the problem of shallow depth of coverage was also mentioned. College H, followed the

YHAFHE published scheme closely. This was the prime example of the whole written scheme being used as a fixed syllabus rather than as an adaptable 'anatomy' and the scheme was also notable for its related lack of employer involvement and its substantial recent decline.

206. The danger of the use of the published schemes as fixed syllabi is well recognised. The appraisal of one UVP field officer, that one strength of TRADEC was that it offered, by virtue of its specification, a half-way house for the practitioner unable to relate to, or uncertain of how to construct, schemes from more open, client-centred models. This strength can however become a major source of weakness at the implementation level, through misinterpretation of its purposes at college level where traditional perception and expectations of a course specifications result in ossification of content. This phenomenon was apparent in several schemes.

207. In DCTP and Food Schemes there were no instances, in the schemes surveyed, of the array being translated directly into the daily timetables and weekly programmes in the way in which it was in many engineering schemes. In the scheme operated by College P, the Course Tutor summed up the process as 'dispensing with the array and looking at areas to be covered', the day being divided into SLS (integrated with scheme topics) (1 hour) Communications (2 hours) and Retailing (3 hours). The array here was considered too rigid, to contain too much material requiring coverage, and lacking in 'new technology' topics. Similarly, College F found the array too rigid, used it flexibly and 'ignored it quite often'. The content had been cut right down and requirements in respect of coverage were not met, intentionally, since the content was considered too heavy. A similar picture was found in other schemes, in mode of implementation, but there was considerable variation in what was considered to be legitimate and appropriate 'flexible use' in terms of the scheme guidelines. In only one case was the requirement of coverage with weighting according to student need and interest observed. Hence 'ignoring' the array and 'using it flexibly' constituted different accounts of very similar processes.

208. The two Commercial schemes resembled the Engineering Zone schemes more closely in their translation of the array directly into the day's timetable. Neither aimed for total coverage of required content, at any level of treatment.

209. The examples of curriculum implementation given in the case studies* illustrate some different approaches to the treatment of Social and Life Skills in TRADEC schemes.

210. As a working framework the guidelines to SLS in TRADEC schemes have been the subject of concern in many quarters. The personal development theme in TRADEC, although undoubtedly present in TRADEC from its inception, as it is acknowledged generally to be in courses of Further Education, is not as apparent in the records and progress of early Committees responsible for the launch of TRADEC as it has been on and subsequent to the sealing of the UVP link. The SLS component of TRADEC was a main point of issue in approval of TRADEC for UVP funding. The importance attached to SLS dimensions, and the reality and strength of dimensions in practice in a scheme specified by technical content and methodology only, raised some questions concerning the appropriateness of incorporation of TRADEC under the UVP umbrella. Approval was obtained

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* See paras 554; 585; 609; 632, 653.

folowing clarification of the intentions of schemes in respect of SLS and inspection of selected schemes using fully integrated approaches. But for many practitioners with particular interest and/or responsibilities in Social and Life Skills, the SLS component remains weak and underspecified, resulting in considerable variations, between colleges and schemes, in both structure, extent and quality of the SLS dimension. The moderation function in respect of SLS is intended to effect some degree of control here - its efficacy is discussed in Chapter 7.* Despite the operation of the moderation system, the SLS component in some schemes passed as acceptable is barely identifiable and certainly operated at a level considerably below that intended by the system and that considered acceptable by many practitioners in General Studies and, in some cases, in technical departments.

211. An examination of the treatment of SLS across the spectrum of operational schemes, serves to shed some light on the translation of SLS guidelines into practice, and the validity of arguments presenting the need for greater specification. In twelve of the schemes surveyed, the treatment of SLS was based on the 'fully integrated' model. These were in the MTP scheme of College G, the FJTP scheme of College E, all Distribution and Consumer Schemes, both Commercial and both Food Trades Principles Schemes. The MTP scheme of College M had attempted a fully integrated model, but in practice the SLS element was virtually non existent - a point on which it had received criticism from the scheme Moderator. In two of the Engineering Zone Schemes, 'double staffing' involved Technical and General Studies staff in sessions introducing technical themes, combining SLS and technical perspectives in the treatment of the topics and themes around which the scheme was built. College E offered its double staffed sessions every third week; SLS dimensions were also built in throughout the other parts of the scheme. College M had previously attempted 'double staffing' and a separate GS component as means of meeting the SLS requirement in its MTP scheme. It will be noted that all schemes in the Business Zones, used the 'integrated' model of SLS. In the DCTP and Food Schemes it was considered by the Course Tutors that many of the themes and topics in the published units were predominantly concerned with social and life skills; integration therefore occurred 'as a matter of course' in the treatment of the content. This embodiment of SLS was particularly marked in elements of courses dealing with customer relations and aspects of management.

212. In two of the schemes surveyed, the model of integrated SLS, supplemented by separate elements, was adopted. These were the MTP scheme of College J and the FJTP scheme of College S. The College J scheme had involved a 'volunteer' from the General Studies department with a 'genuine interest in the scheme', in the provision of separate elements. SLS has been related directly to the specific technical topic under consideration. The Course Tutor, strongly committed to the personal development areas of the scheme, had paid particular attention to ways in which SLS could be developed through the practical and project work of the scheme, through providing experiences of e.g. team working, subsequently reflected upon and discussed in a group context. The College S Scheme linked the SLS component with the 'Basic Concept' column of the array. SLS in this scheme and others was staffed from within the Engineering Department, an arrangement associated with a wider policy decision concerning staffing of General Studies taken some years earlier, and was not a feature of the TRADEC development itself.

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* See para 427 - 432

213. In five of the schemes, SLS was undertaken principally through separate SLS elements provided either by staff of the GS department or of the department offering the scheme. These were the MTP Schemes of Colleges A, B, H and the FJTP schemes of Colleges C and L. In the case of the College A scheme, the college had developed an SLS model for all Vocational Preparation courses and schemes, through a staff team based in the Department of General Studies, specialising in the Vocational Preparation area. Similar teams existed for other broad types of courses. The SLS component of the DABTAC scheme was coordinated by a member of staff of the General Studies department. The component had formely been modelled along lines common to City & Guilds Craft courses but had recently been restyled to incorporate some ABC ideas and approaches. Steps had also been taken to integrate General Studies staff with the with the team of the Engineering Department in respect of the TRADEC scheme. The scheme of College L devoted one half hour at the beginning of the day to SLS, taught by department staff. Thereafter there was some 'limited' attempt to develop SLS within the technical content. The MTP of College B, worked on a basis of shared responsibility for a separately timetabled shot between the department and General Studies, while the scheme of College H provided an SLS component identical with that offered for City & Guilds Craft Studies courses, entirely within the Department.

ON-THE-JOB LEARNING, COMPANY - BASED ELEMENTS AND INTEGRATION

214. A requirement of the TRADEC system is that it should 'bring the employers' plant and expertise into use as a part of the essential method of operation, and in such a way as not to interfere unacceptably with company operation' (YHAFHE 1982: 12). The opportunities for effective use of plant, process and equipment for information, consolidation and in project work are emphasized. Although the existence of a company-based element is not a requirement of the scheme, it is stated that the project should make use of the employer's equipment and processes, and be 'wholly or partly carried out at the work place with the involvement of the staff'. The scheme can be built around or linked with existing incompany training programmes or incompany programmes designed specifically to complement the college-based programme.

215. Incompany elements on the model, commonly adopted in UVP schemes, of induction plus a specified number of days of on-the-job training and planned experience are not a feature of the TRADEC system, although programmes of job notation have been grafted onto the basic TRADEC model, as a recommended form of incompany element for companies wishing to qualify for the incompany grant for Stage 1 TRADEC in the Distribution field.* The intention therefore of the TRADEC system is that the company plant and processes should be used in such a way that the learners' experience, of specific tasks and working contexts gained on-the-job is built upon and used in a variety of ways both to support learning by illustration and application, and to match learning to the learners' requirements and experience at work. This should create 'relevance', it is claimed. It is further claimed that use of employers' plant and expertise ensures automatic adaptation of the scheme, as experienced by the learner, to technical change and should 'achieve a practical contribution to resourcing' through use of employers' equipment, materials and personnel and through industrial supervision. The investigation of the reality and extent of the use of industrial plant, processes and expertise

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* See para 21

has been given particular attention in this investigation and is reported fully in Chapters 5 and 6.*

216. The proportions of scheme participants surveyed who undertook any part of the scheme or course assignments within their companies is given in Table 4.2.

TABLE 4.2. PERCENTAGES OF LEARNERS UNDERTAKING PART OF TRADEC SCHEME IN THEIR COMPANY.

	MTP N=144 %	FJTP N=155 %	DCTP N=94 %	CTP N=24 %	FOOD TP N=5 %
Major Projects					
None	37	39	41	8	(20)
Little	31	25	27	20	(20)
½	15	18	10	28	(40)
Most	10	8	18	32	(20)
All	7	11	4	12	(0)
Minor Projects And Assignments					
None	56	57	49	33	(40)
Little	26	21	22	54	(40)
½	14	16	13	4	(20)
Most	4	4	12	8	(-)
All	1	2	4	-	(-)

The responses were broadly compatible with the responses received from company personnel to questions concerning the extent of company-based activities undertaken by their participating employees and with the Course Tutors' assessments of the extent of company-based activity. The results revealed that company-based activities were more frequently undertaken in connection with the main project, 36 per cent of respondents recording that one half or more of project work had been done in their companies. This overall figure covered substantially different degrees of company based activity between and within types of scheme and within each scheme itself, reflecting different policies adopted towards company based work in different colleges, as well as variations in liaison approaches and local conditions. It will be noted that only in Commercial Trades Principles and Food Trades Principles schemes did the majority of participants undertake more than 'little' of their main project work and minor projects/assignments within their companies. This finding is based on small samples of participants in schemes which are either in, or have only recently completed their pilot stages. The results should be interpreted accordingly.

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* See paras 304 - 317

217. Company-based activities, whether for specific course assignments or project work, was undertaken on an ad-hoc basis in the large majority of cases in which it was present. Only exceptionally did companies allocate a regular time for company-based elements. Similarly, in only few cases was any formal supervision given within the company, and the existence of an Industrial Tutor or equivalent sympathetic - experienced adult to whom participants related within their company in respect of the scheme was rarely encountered. Where such a 'role' was encountered it was generally associated with the UVP link, reflecting expectations and norms of the UVP model, rather than those of the TRADEC operation. However the provision of more generalised support was claimed by many responding companies, and learner questionnaire responses and interviews revealed that approximately 57 per cent of those indicating some part of the scheme to be taken in-company could identify a point of support and supervision in respect of their participation, within the company.*

218. Learner assessments of time available for company-based activity, and of the extent of supervision and other forms of support given in respect of company based activity are given in Table 4.3.

TABLE 4.3. LEARNERS' APPRAISALS OF ADEQUACY OF TIME FOR IN-COMPANY WORK REQUIRED AS PART OF THE TRADEC SCHEME

Learners' Appraisal	MTP N=103 %	FJTP N=111 %	DCTP N=71 %	CTP N=22 %	FOOD TP N=4 %
Too Much	7	6	1	5	-
Just Enough	48	55	39	64	(75)
Not Quite Enough	12	20	23	18	-
Far Too Little	34	19	37	14	(25)

In three schemes surveyed, one full day release was agreed with companies, and participants periodically or regularly went back to their companies in the afternoon to undertake TRADEC activities there. This approach had proved moderately successful, but had encountered some problems in communicating to the companies that the intention of the return to work was that the participant should continue the learning activities in the workplace.

219. Differences in 'policy' of the departments offering TRADEC schemes, towards incorporation of company-based work, has already been noted. In some colleges, there was an insistence that the major project was undertaken

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* See para 253

in the company, and there was a high degree of success in achieving this. In other instances, company-based projects were not encouraged or desired, often because of the anticipated problems in their monitoring and supervision. Employers attitudes and wishes for active involvement, were, of course the other dominant factor determining the existence and extent of company-based activities. Table 1.1.* summarises the extent of company based work in the schemes surveyed. The extent of other forms of company-related work, drawing on the employers' plant, processes and expertise, was able to be examined more closely through the case study investigations.

(i) Use of company plant/process etc. for illustrative purposes in the classroom.

220. Observation revealed that individual experience of learners, gained in their jobs and in the wider work environment, was drawn on fully and effectively in the theoretical components of most schemes, thus grounding theory in experience and practice as intended. 'Classroom' methods ranging from completion of worksheets, drawing on specialised experience, to discussions on the ways in which specific tasks/problems were tackled in the company were common. In learner interviews conducted in the case study schemes, it became apparent that unemployed young people participating in the schemes, who were not current WEEPs trainees, were frequently left behind in this although several found it of some help to learn from the experiences of others. Differences in experience of work of this order, and their implications for the value which can be derived from schemes, are points to be given attention, by the schemes drawing in progressively larger proportions of unemployed young people alongside those who are in work.**

(ii) Supply of materials/equipment for college based work

221. Supply of materials by companies was widespread, and occurred whether TRADEC acivities were undertaken within the Company or wholly within the college. In the case study schemes there were examples of materials and use of equipment being made available by a substantial proportion of participating companies, ranging from small businesses to large companies. The nature of the contribution, too, ranged from supply of occasional 'samples' from retailing establishments to availability of specialised equipment and supply of all materials for selected projects. It should be noted, though, that for any given scheme, it was in exceptional rather than typical cases that the latter level of contribution was made.

(iii) Industrial inputs to college-based work

222. Industrial Assessors were used in 18 of the 19 schemes surveyed. In the 5 case study schemes, all except College F used industrial assessors in the assessment of project work. In all cases the industrial assessor was drawn from a participating company. Periodic industrial inputs featured in all of the case study schemes. Only two schemes involved industrial personnel as members of the Course Team, contributing regularly to college-based learning.

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* See pp 21 - 28

** See, for example, Case Study 4, paras 626 - 646

LINKAGE WITH TRAINING PROGRAMMES

223. There were few instances of TRADEC schemes being linked with existing training programmes of on-the-job training, or of planned experience being devised to accompany or 'fuse' with the standard scheme. Where existing training was provided, frequently no link-up occurred and in several cases direct duplication resulted, a point commented on by participants from the companies concerned. Examples of this were presented by the case study investigations.*

224. The general survey results revealed that more than one-third of responding companies claimed to attempt to gear the informal on-the-job learning of their TRADEC participants to the college programme.** Many with whom personal contact was established considered that it would be useful to do so, but had little time to concern themselves with that sort of activity, and considered that it was the job of the college to relate the progress of the college-based component to the developing work and experience of the learner in the company. It should be noted however, that a substantial proportion of company personnel considered that the prime function of release to the college was to enable young people to 'broaden' their knowledge and experience beyond the 'narrow alleyway' of their work and that of the individual company.

225. The Distribution and Consumer area represents a special case in respect of integrated or linked training in the company, and the selected Case Study provides an excellent illustration of the features which differentiates DCTP from other schemes in discussions of the nature and role of an 'in-company element'. TRADEC Distribution and Consumer schemes became operational after the introduction of the UVP Pilot Programme, in contrast with the MTP and F&JTP schemes. Their link with the DITB/UVP programme has been described in Chapter 1 together with the decisions to proceed through different channels following the withdrawal of DITB recognition for TRADEC in 1980. The Regional Steering Committee, set up to guide and support DCTP schemes, subsequently recommended that certain features of the DITB/TRADEC operation be maintained as 'good practice' . The two features in question were the 12-week programme of planned experience and job rotation, and the residential element, grafted onto the basic TRADEC model in order to provide a more complete experience for the learner. Companies subscribing to the scheme and wishing to provide an incompany element appropriate for MSC funding purposes are, therefore, invited in most schemes to draw up a programme of planned experience or job rotation to link with the college-based scheme.

226. In most cases in which in-company schemes based on job rotation/planned experience are intended, they have failed to materialise. This, the NFER evaluation revealed, was by no means uncommon in UVP schemes. In the case of TRADEC, the low success rate is attributable, in large part, to the absence of workable supporting mechanisms. It has proved extremely difficult for scheme coordinators to maintain these programmes without the coordinating and monitoring mechanisms of the ITB. Even with these mechanisms, substantial problems had been encountered in sustaining the in-company programmes. Since no requirements are placed on the existence of an in-company programme or on satisfactory performance within it, for successful completion of the scheme, there is little incentive for either college or company to expend effort in this direction.

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* See, for example Case Study 3, para 617

** See, for example, paras 340, 361 , 408, 409.

In the College F DCTP case study, two large department stores had a substantial and continuing involvement in the scheme. Both companies operated programmes of job rotation for young employees as part of their standard training. However, in neither case was the programme linked in terms of job progression, duration or 'cycles' of rotation or experience, with the structure progress or length of the college-based scheme. Obtaining linkage was considered, by the Course Tutor to be potentially too demanding for it to be worth attempting, and the learners perceptions were invariably that there was no association between college-based TRADEC and their company programme.

INTEGRATION

227. Matters concerning integration have been touched on repeatedly in the discussion of variations in company based work and in discussion of alignment needs. The function of course work assignments and projects is essentially an integrating function, between day-to-day experience gained in the workplace and learning in the college setting. On the whole, where there is a degree of student choice and discussion in respect of selection of these elements, their integrating function is effective and is perceived to be so by all parties to the process; the danger is one of ossification in stereo-typed activities following a period of operation.

228. The existence of a complementary in-company programme of planned experience/on-the-job trianing gives the projects and assignments potentially enhanced power as instruments both of learning and reinforcement, and of integration between components, if appropriately used. In schemes achieving a higher degree of balance and unification between incompany and college-based programmes, projects on the TRADEC model could assume a very important role, and would, if adopted, improve upon the less focused project approach frequently used in UVP schemes, providing a vehicle for transmission of a wide range of basic skills in an integrated and applied way.

229. The integration of the programme with experience and on-the-job learning tends to be as good as the liaison process and the commitment and understanding of the staff operating it. Schemes operating with only one or two companies involved clearly are able to have greater intensity of liaison than schemes with very large numbers of small companies, shown by many schemes in the engineering areas. Companies responses to questions concerning integration are discussed in Chapter 6. The overall picture is one of fairly good alignment, but little integration of different scheme components. Integration in the mind of the learner is ultimately what counts, and in respect of the general progression of the scheme, a frequently expressed view was that such link-up as had occurred between the college and company components was by chance only.* This was an assessment supported by the researchers own observations and examination of scheme programmes and activities, against data obtained on the working and training contexts of the learners.

230. In conclusion, therefore, the curriculum features which represent the translation, into a working model, of the learning parameters originally developed for the system,** materialise in widely varying forms. The variations are due both to differences in interpretation by the practitioners, and to the demands placed

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* Indeed, the scheme was most often regarded by learners as consisting solely of college-based activities - a point also noted in respect of UVP in the NFER research.

** See TRADEC I paras 14 - 19

on the system under different circumstances. Divergence from the intended model is apparent, in most schemes, in the extent of real interagency and teacher-client negotiation which takes place, and in the extent of use of the employers premises as a base for planned learning within the scheme, under supervision of industrial staff. The intended integration of SLS occurred in the majority of schemes, although there were again, considerable variations in the strength of this dimension. In translation of the scheme structure into the week by week programme and daily timetable, full use is made of the flexibility of the model in many cases. However, variations exceed the boundaries of acceptable operation in many cases, particularly in the content coverage requirement and in the maintenance of structural relationships between parts of the schemes.

LEARNER EXPECTATIONS OF THE SCHEME

231. Open responses to questionnaire items* coupled with interview data from the case study schemes led to the following conclusions concerning learner expectations of the scheme in which they were engaged:

(i) expectations were often not clearly formulated, or formulated only in a very general way. This reflected the fact that initially many were told they had to come. Often the learner knew little about the scheme beforehand and in most cases it was their first experience of college.

(ii) expectations were influenced by previous educational experience. Those who had been successful at school often saw coming to college as a natural follow-on to school, whereas those who were not successful academically and/or did not like school divided into two camps: firstly, those who expected college to be more of the same-boring, uninteresting, being treated like children, and secondly those who saw it as an opportunity to make a fresh start.

(iii) expectations and wants were dynamic and changed as the learners attitudes to both work and college changed in response to their experience of these (often new) contexts. Also of course, many were experiencing change in the sense that others were recognising that they were adults rather than children, even if they themselves had long regarded themselves in this way!

(iv) those who were unemployed or in Work Experience hoped (expected would be an overstatement) that it would help them get a job and this was their dominant concern.

(v) those in work and following Business Zone schemes generally expected the course to be useful to them in their present job in the sense of actually helping them to perform better, if they did expect the course to be helpful at all. Only rarely did they expect the course to lead on to something else.

(vi) by way of contrast, the dominant theme for those on Engineering schemes was the expectation that the course would enable them to learn a trade/skill, to achieve fully skilled status etc. Thus improved performance in their current job was seen as a by-product, even if it was a necessary part, of the achievement of skilled status. Indeed some operators perceived it as a way out of their current job.

232. The issues raised here are dealt with further in the following sections on learner assessment of benefits, usefulness and relevance, and on learner motivation.

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* Questionnaire for scheme participants :
TRADEC III, Questions 2, 3, 8, 14, 15, 20

TABLE 5.1: PERCENTAGES OF LEARNERS IDENTIFYING DIFFERENT BENEFITS, BY SCHEME

BENEFITS	OVERALL	MTP	FJTP	DCTP	CTP
1. Understanding my work better.	69	51	85	72	60
2. Learning things for life outside work.	48	41	49	50	64
3. Greater confidence.	41	26	44	63	40
4. Wider work experience.	72	69	82	57	72
5. Broader outlook on work.	54	46	58	62	40
6. More responsible attitude to work.	48	27	58	62	48
7. Communicate better.	44	33	36	73	40
8. Means of getting a better job	48	43	60	36	40
9. New opportunities at work.	29	24	34	29	24
10. Relationships with other people.	39	33	26	71	40
11. Greater satisfaction from work.	36	20	53	37	16
12. Developing my interests.	31	22	42	31	12
13. Opportunity to gain knowledge and skills not gained at work.	70	69	74	68	52
14. Chance to gain a qualification	82	79	91	76	80

233. Learner/appraisals of the following were sought:

a. actual benefits
b. relative usefulness of different scheme components
c. any company-based activities experienced
d. relevance of scheme to work

Actual benefits

234. The learners were asked in the questionnaire survey whether they thought certain specified benefits applied to them.* The figures

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* Questionnaire for scheme participants, question 6, TRADEC III

obtained were examined by type of scheme and by individual scheme. The scores for each variable were subsequently added into scores reflecting 'general self-development benefits' and 'job-related benefits'. (See Table 5.1.)

235. The learners in Fabrication and Joining Schemes considered that there were substantial job-related benefits arising from their participation. Thus, all job-related benefits listed were rated highly, (50%) with the exception of that concerning new opportunities at work. Overall, 67 per cent thought that the Fabrication scheme had helped them with four or more elements in the job-related cluster. Even with the general self-development score, the learners responded positively, although there were 2 elements where the course was clearly not perceived as helpful: 'helped me to communicate better' and 'helped me in my relationships with other people'.

236. When the pattern of responses is broken down to individual colleges, a reasonably consistent picture emerges (the only exception being College S which was running the course for the first time and which was acknowledged by the course team to have 'lost its way' during the year.The benefits of the course were seen primarily job-related but there were also some benefits in terms of general self-development. However, these were nearly all related to just two elements of the self-development cluster: opportunity to gain knowledge and skill not gained at work (74%) and chance to gain a qualification (91%) . Both these strongly related to the idea that they were 'learning a trade' and given the small size and limited variety of work in many fabrication workplaces, the college was perceived as somewhere you could acquire the additional skills necessary for you to achieve skilled status. The other elements of the general self development cluster tended not to be recognised, although there was an increasing awareness and recognition of these as benefits after Stage 1. (Learners in Stage 3 of the scheme run by College E were exceptional in that they did consider the course was helpful with all the personal development elements).

237. It might have been expected that learners on Mechanical Trades principles schemes would show a similar pattern of response, as this was also an ngineering scheme and all participants shared an outlook about the value of job-related skills which was similar to that found in the Fabrication schemes. However, learner assessments of the actual benefits were lower in all of the categories given in Table 5.1, and often markedly lower. This emerges even more clearly if one looks at the general self-development and job-related cluster. The schemes not only scored markedly less well than the Fabrication schemes but they had the lowest score of the four schemes on both counts. Indeed four of the five colleges rated very low on both counts. The only exception was College J, which scored very highly on the general self-development cluster (a majority of students responded positively on each of the 7 separate elements). It is important to note that this scheme was the one in which the Course Tutor claimed to be strongly influenced by the UVP philosophy, and had experienced concern about the capacity of the TRADEC model to meet personal development aims adequately.

238. This is not to say the MTP scheme did not in general, offer benefits but just that they were percieved as rather narrow or few in number. For example, for only four categories did a majority of learners consider the course gave them this benefit: understand my work better (51%), wider work experience (69%) opportunity to gain knowledge and skills not gained at work (69%) change to gain a qualification (79%)

239. In Distribution and Consumer Schemes the outstanding features of the pattern of responses obtained was the extent to which learners perceived the scheme as helping them to communicate better (73%) and helping in relationships with other people (71%). The other three schemes did not have more than 40% positive responses on these elements. Similarly, the 'job related benefits' score was also quite high (58% Overall) despite low scores on three of those elements: new opportunities at work (29%) more satisfaction from my work (37%) means of getting a better job (36%). However, there were differences between colleges in respect of the job - related scores, the schemes offered in Colleges P and E being strongly positive whereas schemes operating in Colleges F and H were strongly negative.

240. The results from the Commercial schemes should be examined by college. The College E scheme only produced 5 respondents, but 4 out of 5 strongly emphasized the job-related benefits. Whereas learners in the College G scheme had low scores on these benefits. This was particularly marked in the case of Stage 1 learners. However, learners in the former scheme rated general self-development benefits low, overall. In the case of 'improving confidence' the score was nil. There was a distinct difference between the two College G groups. Stage 1 learners rated general self-development benefits high, while Stage 2 learners rated them low. If 'improving confidence' is looked at again, in Stage 1, 8 out of 12 learners, and in Stage 2, 2 out of 6 learners selected this as a benefit. The Stage 1 results are readily explicable by the nature of the learners themselves. The low job-related scores in the College G scheme reflected the fact that many of the learners did not have a permanent job to relate their learning to!

241. The 5 respondents from the College A Food Scheme considered that the course offered a fairly wide range of benefits, with high scores on both 'general self-development' and 'job-related' benefits.

RELATIVE USEFULNESS OF DIFFERENT SCHEME COMPONENTS

242. Question 8 on the questionnaire survey asked respondents which parts of the scheme had been most useful, and which least useful, in their work.* Because of the different ways learners answered, it was difficult to make direct comparisons. While some for example, specified particular subjects or skill elements, others contrasted value of theory and practical. The specific elements most frequently mentioned as most or least useful were as follows:

		Most Useful	
FJTP:	Technical Drawing	31	(least useful 22)
	Welding	34	(" " 2)
MTP:	Machining	13	(" " 1)
DCTP	Communications	15	(" " 5)
	Typing	7	(" " 2)

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* Questionnaire for scheme participants, TRADEC III

The only specific elements mentioned often as 'least Useful' elements were:

		Least Useful	
FJTP:	Technical Drawing	22	(most useful 31)
	Sheet-metal Work	21	(" " 7)
MTP:	Plastics	10	-

Where answers were expressed in terms of broader scheme components, the frequencies were:

	Most Useful	Least Useful
practical	107	8
theory	28	20
general studies (or SLS)	23	114

Learners in some cases wrote about the relative usefulness of different components in the space for 'additional comments'. However, these comments often related to the particular way of subject was taught by a tutor, rather than to its intrinsic value.

243. Overall, then, little systematic information about the relative usefulness of scheme elements was yielded by the questionnaire responses. However, substantial data was obtained from the case study schemes on this question.

Case Study 1: Mechanical Trades Principles, College A.

244. There were varying opinions about the usefulness of different parts of the course. For example, the responses of 10 Stage 3 learners were as follows:

Learner 1: many lessons were irrelevant; general studies was a waste of time; would like a lot more practical; usefulness of practical is curtailed by poor quality of the equipment.

Learner 2: theory more useful than practical, particularly supporting studies; practical is not useful because it is a different scale to that used at work, the machinery is too old-fashioned and by the time you have set your machine up and packed away there is little time left to do much practical; General Studies useful (especially with regard to your rights: trade unions etc.)

Learner 3: theory very useful, practical not very helpful, because already covered at work; General Studies alright but of little direct use.

Learner 4: theory useful, practical helpful on machines not used at work, but practical at college and work have different emphases (finish v. speed): General Studies is a good lesson.

Learner 5: theory is needed as background, practical is helpful; General Studies is not much use at work, but may come in useful at some time.

Learner 6: practical is just right for work; theory is little use - it is too easy, (did more at school); General Studies is no use at all.

Learners 7:
8:
& 9: practical - thinks they should have a special course; they use machines they do not use at work, but this may be useful if they left their present company; theory is of little help; General Studies was useful when they had good teachers, poor now.

Learner 10: theory and practical both of little use at work - they are too easy, although a bit more useful now maintenance is separated from production; General Studies was alright in previous year.

245. What does emerge from the above is that learners use substantially different criteria to judge whether something is useful. The perfect illustration is afforded by the learner who comments that part A. is useful because it is little to do with his job, while his colleague observes that this is why it is not useful!). To attempt a summary of the above, theory is generally seen as useful, although for a variety of different reasons. Practical work is seldom directly relevant to the job, but again this is perceived in different ways. General Studies receives a mixed response. A similar mixed pattern of responses about the usefulness of different parts of the course was shown by the Stage 2 learners as well.*

Case Study 2: Fabrication and Joining Trades Principles, College C.

246. A much more consistent pattern of responses was discernable here. The majority of learners found both theory and practical useful, and while some thought the balance between the two was about right, others would have liked more practical. There were a few learners who wanted a little less or a little more welding or sheet-metal work, but the practical work was widely regarded as very useful. Several learners did, however, comment that they found Technical Drawing the most useful part, and would liked to have done more. Overall the general attitude was so positive, that it was very rare for anything other than General Studies to be mentioned as least useful. However, General Studies was not perceived as uniformly bad. The majority of learners on Stage 3 felt that General Studies was better in the third year, but had been very poor during previous years. Most Stage 2 learners thought that G.S. was sometimes interesting, while at other times during the current year it had been 'hopeless'. In addition the learners felt that this component had been of little value in Stage 1, a perception reinforc ed by the current year's Stage 1 learners.

Case Study 3: Distribution and Consumer Trades Principles, College D

247. Again a fairly consistent pattern of response emerged:

For learners following Stages 1 and 2 (end-on)
- money, profit, turnover, credit
- security
- law

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* Answers to this also depend on the learners' general outlook or motivation, see paras 294 - 329

were the elements frequently identified as the most useful, together with the residential period which was regarded very positively. The only subject mentioned as least useful was 'personal development.' However, the overall response to personal development was mixed with one group finding it interesting and useful, whereas two slightly larger groups found it good, but not relevant or had a very strong dislike of it and considered it to be useless. It was clear that most of the learners considered there was too much time spent on irrelevant activities (news reading, telling jokes, charades, role playing etc.) The practical sessions (exercises in selling etc.). evoked no strong feelings either way, with only 2 learners mentioning that these were helpful). For learners on Stage 3, there seemed to be agreement that most of this work would be useful if they were promoted.

Case Study 4: Commercial Trades Principles, College G.

248. Most of the learners on both schemes perceived all parts of the course as useful, but not necessarily relevant to work. The Social and Life Skills element was particularly likely to be seen as very useful in Stage 1, although one or two learners had reservations about some of the activities in SLS. However, when the researcher probed a little more deeply into their feelings about the course, it seemed that there were two distinct groups among the Stage 1 learners:

i: those who were genuinely enthusiastic, and found the scheme very useful and
ii: those who passively accepted most of what was taught, but did not feel very strongly about the course.

There were also one or two complaints about facilities. It was 'boring' having just to fill in exercise sheets during the practical sessions, and insufficient individual attention was given in typing sessions (where the groups were amalgamated into a large class). On the other hand, the learners on Stage 2 all responded favourably. Three learners saw 'wages' as being particularly useful element, but learners did not identify any element as being less than useful. Several learners also made the point that it was a much better course than the BEC General Course which they had followed previously. Many learners, however, did not find the learning relevant to their work.

Case Study 5: Food Trades Principles, College A.

249. Learners were reluctant to identify any particular elements as 'most useful' or 'least useful'. The whole group appeared passive and unresponsive, a perception shared by the Course Team.

Company Based Activities

250. Question 9 asked learners to record how much of the scheme had been undertaken.in-company. The overall findings were as follows:

TABLE 5.2: EXTENT OF IN-COMPANY ACTIVITY

(Percentages, N = 430)

	1.None	2.Very Little	3.About Half	4.Most	5.All
Main Project	37	27	16	12	8
Small Projects	53	25	14	6	2
Other Exercises	63	23	8	4	2
Other	96				

Where the results are broken down by scheme, the patterns are shown in Tables 5.3 and 5.4.

251. Thus it is rare for any scheme activities other than the major project to be done in-company. Where this does occur it usually takes the form of a tutor asking the learners to check on a particular element of the company's operations e.g. fire precautions; safety; stock control, ordering etc. This was most common, though still rare, on the Distribution scheme). For this reason when looking at the amount of in-company work carried out at different colleges, it will only be necessary to look at the statistics relating to the major project. Of the engineering schemes, only the College J scheme had a substantial majority doing a significant amount of project work in-company. Similarly, among the Business Zone schemes, only the College G Commercial scheme had a substantial majority doing a significant amount of project work in-company.

TABLE 5.3: EXTENT OF IN-COMPANY ACTIVITY, BY TYPE OF SCHEME

(percentages)

Main Project		None or Very Little		Half or more	Small Project	Other Exercises
MTP	N= 144	68	-	32	84-16	91-9
FJTP	N= 165	64	-	36	79-21	86-14
DCTP	N= 93	68	-	32	72-28	77-23
CTP	N= 23	28	-	72	87-13	92-8
(Food) Actual Numbers	N= 5	(2	-	3)	(4-1)	(5-0)

252. Among the 107 learners who undertook no scheme activities at all in-company (i.e. answered 'none' on all three elements), the reactions to questions of whether the scheme would have been more or less useful if part of it had been done in their company were as follows:

more useful 41%
less useful 16%
uncertain 43%

That this response was less positive than might have been expected, may reflect (i) that some learners perceive the scheme as valuable because it offers them an 'escape route' from their jobs and are more interested in the acquisition of general applicable skills rather than those relating to their current job,* and

(ii) that even for those who did see the course as helping them in their existing job, what mattered for them was whether the course was tailored to their job.

liaison and specialization could produce a highly relevant course even if it took place entirely at college. By the same token a scheme could be largely irrelevant, but have a project which took place in-company! So of more concern to the learner (unless he had very clear individual goals, which were unrelated to his present job), was the degree of support he received in-company towards his participation in the scheme as a whole.

TABLE 5.4. EXTENT OF IN-COMPANY ACTIVITY, BY INDIVIDUAL SCHEME

(Frequencies)

	None/Very Little - ≥ Half		None/Very Little - ≥ Half
Mechanical Trades Principles		Distribution & Consumer Trades Principles	
College M	17 - 0	College D	10 - 14
College H	8 - 9	College E	14 - 15
College J	0 - 11	College P	11 - 3
College A	23 - 13	College K	5 - 0
College G	50 - 14	College F	25 - 8
Fabrication & Joining Trades Principles		Commercial Trades Principles	
College L	21 - 6	College E	2 - 3
College S	8 - 0	College G	5 - 15
College E	5 - 6		
College B	28 - 27	Food Trades Principles	
College C	41 - 18	College A	2 - 3

253. Only 41 per cent of the total learner population surveyed (N=440) had someone at work to supervise and help with TRADEC coursework.** This person was identified as follows:

	%
Personnel or Training Manager	42
Other Management	14
Supervisor/Line Manager	23
Other Office Worker	1
Foreman or Equivalent	6
Instructor	1
Other Workers	12
All Staff or Varying	1

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* For a fuller discussion of this, see paras 294 - 329

** Questionnaire for scheme participants Questions 11a, 11b,(N=157)

Given that learners sometimes felt reluctant to initiate contact with managers over course matters, even if the manager was favourably disposed towards the scheme, it was clear that learners often felt they were not adequately supported in-company. The deleterious effect this could have on learner motivation is dealt with in Paras

254. For those learners who undertook some form of TRADEC activity in-company, the following were the reports they gave of some of the types of support they could have been given.*

TABLE 5.5. TYPES OF IN-COMPANY SUPPORT (Percentages, N=333)

	Very Helpful	Fairly Helpful	Little Help	No Help Given
Supervision of project work	19	30	30	20
Arranging visits and other special activities	6	19	38	37
Arranging experience of different kinds of work	20	24	24	32
Giving advice and guidance on course-work	20	31	27	23
Providing materials and equipment for use in projects	48	26	16	10
Other	4	7	8	81

This suggested that learners perceived their companies as generous in the supply of materials, a point reinforced by data from other sources.** The degree of support offered in the form of help, advice or some form of training in-company varied greatly. That this was so was amply supported by interviews with learners in the case study schemes, and in the responses of college staff and employers themselves. There was a particular lack of support from employers participating in the DCTP schemes. (even though these had sometimes received substantial grants on the assumption that in-company training was occurring alongside the college element).

Relevance Of The Scheme To Work

255. This issue has already cropped up in the preceding discussions on actual benefits, relative usefulness of different scheme components and the extent of company-based activities. The relevance of the scheme to work can be looked at in three ways:

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* Questionnaire for scheme participants, question 11c (N=333)

** See Para 221

i. whether the scheme helps the learners in their current job

ii. whether the course teaches job skills (irrespective of whether these are used in the learners current job or not).

iii. whether, by relating the course to work, the learners are given a base from which to achieve educational goals.

Each scheme will be looked at in turn.

256. In Fabrication & Joining Schemes an analysis of learner assessments of the benefits gained from TRADEC* showed that the majority of learners thought that the schene did offer substantial job-related benefits, but also that it taught more general job skills (i.e. they were able to develop a skill/learn a trade). This view received strong support from the answers to subsequent questions concerning job prospects** 70 per cent of learners thought that gaining a TRADEC certificate would help their prospects in their present employment and 91 per cent thought it would help their future prospects. Where the results are broken down by college, the emerging pattern is as shown in Table 5.6.

TABLE 5.6. LEARNERS ASSESSMENTS OF VALUE OF TRADEC CERTIFICATE IN (a) PRESENT (b) FUTURE EMPLOYMENT (Frequencies)

	College B	College C	College E	College L	College S
(a) Present Employment					
Will not help prospects	9	14	2	9	3
Will help prospects	32	33	2	16	3
(b) Future Employment					
Will not help prospects	3	6	0	2	0
Will help prospects	40	41	8	21	7

This would appear to confirm the view already argued that the scheme is essentially about the acquisition of job skills, even although the course might not be directly useful for some in their present job. Evidence from the case study scheme suggested that, at least College C, this was more likely to be attributed to the limitations of their job rather than to any lack of flexibility in the scheme itself. However, for a large majority, the scheme is relevant to their current job. That the scheme also uses the relationship of the scheme to work as a vehicle to achieve educational goals is substantiated if the prior educational level of the learners is examined+

no CSEs	< 3CSEs	⩾3 CSEs < 40s	⩾ 40s
24%	22%	48%	6%

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* See paras 234 -241

**Questionnaire for scheme participants, Question 14a and 14b (N=133)

+ Questionnaire for scheme participants, question 24

257. The achievements on the Fabrication scheme were very impressive. In comparison with the other TRADEC schemes the Fabrication schemes were the most successful on almost whatever criteria were chosen - even though they had the least 'educated' population. The results were achieved with a population 46% of whom had less than 3 CSEs (and as such would be regarded as 'academic failures').

258. It has already been noted that learners on Mechanical Trades Principles schemes were the least positive about the range of benefits offered of all the schemes. This was also reinforced by answers to questions concerning 'Prospects', where a majority (56%) considered that the course did not help their prospects in their present employment, although 72% of learners thought it would help their prospects in future employment. Again this was the least positive rating by type of scheme. The case study scheme showed that elements of the course could be valued despite or even because they were not relevant to their immediate job*

259. It was clear that the Distribution and Consumer Trades Principles scheme was not necessarily seen by learners as directly related to their work roles, in the sense that it improved particular job-skills, but it was helpful to them at work insofar as it helped them communicate better, improved their self-confidence and helped them 'get on with others'. That is, general personal development aims also paid off in helping them to perform better at work, since they were mainly involved in retail selling. However, the extent to which individual learners considered the scheme to be helpful depended on attitudes found in their companies, the extent of college-company liaison and their own motivation.** This would again appear to have been borne out by the response to questions concerning prospects: 65% thought it helped their prospects in their present employment while 81% thought it would help their future prospects.

260. In the Commercial Trades Principles schemes, the majority of learners did not have a job, but the scheme was not seen as relevant to work even by those with a job. Only one learner thought the scheme would help their prospects in their current employment. However, 12 of the 15 learners thought the course might help their future prospects. Thus there was a tendency to regard the course in the same general terms as other F.E. courses. This point was reinforced by the number of learners who were doing or had done other F.E. courses.

261. Of the 5 learners in Food Trades Principles 2 thought that the scheme was directly relevant to them. Only 2 thought the course would be helpful with regard to future prospects. It was generally agreed that overall value of course depended on the nature of the participants' job.

TEACHER PERCEPTIONS OF LEARNER BENEFITS

262. Teacher assessments were also sought, concerning:

a. actual benefits

b. relative usefulness of different scheme components

c. any company-based work

d. relevance of scheme to work

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* See para 245

** See paras 294 - 317

Actual Benefits

263. Fabrication Schemes: Teachers shared on the whole the view that the main course benefits relate to job skills, but, stressed in most cases, that they are trying, in addition, to teach the learners a trade.* Other personal development aims have a low priority. Many teachers were openly sceptical about value of SLS. However, staff in College C acknowledged that this was a weakness, and in the 81-82 scheme tried for the first time to incorporate a residential element.

264. Mechanical Schemes: Similar orientations were found among teachers. College G considered that their scheme gave personal development needs through their treatment of social and life skills. However, there was one exception, already mentioned, to the view that the scheme was primarily about the acquisition of specific job skills: In College J the staff expressed the view that the course was not primarily about the acquisition of mechanical skills, but rather that it was more important for the learners to be able to work as members of a team. Hence emphasis was placed on forming relationships with others and improving their ability to communicate.

265. Distribution Schemes: Teachers in all of the colleges operating DCTP stressed that increasing self-confidence and the ability to communicate were essential to improving job performance (selling) as well as for their own sake. Thus the centrality of personal development was emphasized, and the teachers considered that this would also yield job-related benefits.

266. Commercial Schemes: College E placed great emphasis on the fact that the scheme is designed to improve job-related skills. While the composition of the learner population in the College G scheme might have led one to suppose that the main aim was more general personal development, the Course Tutor was at great pains to point out that she felt there was a considerable body of job-relevant knowledge to be transmitted by the scheme.

267. Food Scheme: College A staff felt that it was difficult to discern any substantial benefits to the learners, and that this particular group of learners did not have sufficient experience of catering to be able to contribute much. Also it was felt that the learners were not sufficiently critical in their assessment, and the scheme could have been made more relevant to their jobs.

College E staff considered benefits to be similar to those of DCTP

Relative Usefulness of Different Scheme Components

268. Certainly the practical emphasis was often stressed by the teachers, but they were likely to see both theory and practical as useful to learners at work. There was, however, a marked difference of opinion over the usefulness of Social and Life Skills, with many teachers very sceptical about its value, and some openly hostile. These attitudes were fairly common on the Engineering schemes.

The case study schemes are able to provide illustration here:

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* Although College S is seeing the scheme as primarily for operators and concerning itself with supporting operated functions

269. Mechanical Trades Principles: College A. It was acknowledged that the practical scheme of work for those on maintenance was probably better than that for those on production. The degree of staff support, facilities available and relevance to work of the practical were all poor. The theory part of the course was better organised, but this was because it drew heavily on material used in other courses, which did have a more theoretical emphasis. There were, however, few qualms over this - this was a body of knowledge which had to be known if the learners wanted to go on to achieve skilled status. Some staff had reservations that they were insufficiently prepared by TRADEC for transfer to the academically more demanding C & G craft courses, they simply had not spent enough time on theory.

270. Fabrication & Joining Trades Principles. College C. Practical and theory were both seen as very useful. The usefulness of Social and Life Skills was thought to depend on who the teacher was as much as on the subject, in that some teachers adopted totally inappropriate approaches.

271. Distribution & Consumer Trades Principles: College F. Staff did not perceive any one part of the scheme as being most useful or beneficial to the learners. They did recognise that they sometimes had problems with company participation and that, as a result, projects were not always as relevant as they could be The dominant theme of the 'personal development' sessions was that of development of confidence etc. by putting the learner into testing situations. It is interesting to note how few learners had understood the intentions of the activities here.

272. Commercial Trades Principles: College G. Staff did not stress any part of course as being more useful or beneficial than any other. They did acknowledge that the range of practical activities etc. had been curtailed by the unavailability of the business activities room, and similarly that typing facilities were stretched.

273. Food Trades Principles: College A. Staff felt that it was very difficult to obtain any response from the group.* They doubted whether any of the scheme was much use to the learners in this instance. In particular, the learners were so inexperienced that they did only very low-level practical activities.

Company Based Activities

274. Most teachers readily acknowledged that there was little or no in-company element. With regard to the major project, many colleges preferred this to be carried out in the college, to ensure that it was adequately supervised and that it was a worthwhile learning experience.

275. On the Engineering schemes (with the exception of College J and its attempt to use the project to develop teamwork, and an appreciation of the importance of co-ordination and communications) the project was usually seen as the most striking example of the benefits of industrial liaison affording the opportunity to produce something of value to the employer, and an opportunity for the learner to pull together some of the skills learned, in the production of a piece of work which will offer the learner challenge and achievement. Some teaching staff took a great

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* See para 249

pride in the achievements of learners in their major projects and they put their effort into this rather than in trying to set the projects up in-company, where they felt they might have insufficient control.

276. On the non-engineering schemes, the projects were often discrete rather than integrative of different skills, in that they related to one part of the course or they provided a background to the learner's job. However, some were directly relevant in the sense that they related to specific products, the intention of which was to extend the learners product knowledge.

Examples of these three 'types' are given below:

	i. relating to one part of course	ii. background	iii. product knowledge
DCTP:	Security Consumer Protection	Basic Beauty Hair Care	Royal Worcester China Berol Writing Utensils
Food TP:	Food Service	Hotel Structures	Potatoes
CTP:	Purchasing Power of the Pound	History of company	-

However, they were again perceived as useful and beneficial in that they could represent a substantial learner achievement.

277. The whole question of the degree of support the learner received in his TRADEC work is a key issue, and is discussed more fully in paras 308 - 311, suffices to say that teachers did acknolwedge that there were wide variations in the degree of employer support, but the extent to which they actively sought to improve this also varied considerably.

Relevance Of The Scheme To Work

278. All teachers in Fabrication and Joining thought the scheme was highly relevant to work, that students were learning a trade/skill and they did regard the link with their work as essential in order to teach this type of group. Most had a high commitment to industrial liaison and sought to make the scheme as relevant to work as possible.

279. With the exception of College, J teachers in Mechanical Trades Principles shared the same broad outlook as those in Fabrication schemes but seemed more prepared to teach a body of knowledge which was assumed to be relevant, rather than trying actively to make it relevant as possible to the work performed by each learner.

280. Teachers in all Distribution schemes thought that the way to combine improved job performance with educational goals was through 'personal development' aims acknowleding the centrality of communications etc. to jobs involving selling. The colleges, however, varied in the extent to which they sought to make the course relevant to the particular

jobs the learners performed.

281. Staff in Food Trades Principles thought that the scheme was not very relevant to learners in their particular jobs, because of their lack of experience.

282. College staff involved in Commercial schemes did see the course as jobs relevant and sought to stress the link even where the learners were only on work experience, while those engaged in the one Food Trades Principles in operation felt that the scheme was not relevant to learners in the current scheme, because of the lack of experience already noted. Staff engaged in the Food scheme previously offered by College E, however, considered that their scheme had been as successful in achieving work relevance as had been their Distribution scheme.

CONCLUSIONS CONCERNING LEARNER BENEFITS

Fabrication Schemes:

283. The whole emphasis of all parties to the process was on the development of job-relevant skills, and most went beyond this to consider that the course was about students 'learning a skill or trade' (with possible exception of College S.). There is little doubt that the course was successful in these terms. Again all parties seemed to agree on the marginal nature of life and social skills, and did not consider this helped them communicate, form relationships etc. Wider UVP-type aims do not appear to have been taken on board.

Mechanical Schemes:

284. At several of the colleges the schemes were suffering a marked decline in terms of numbers, and there were doubts about the continued viability of the courses. This may have meant that teacher assessments referred to earlier days, when the scheme was more buoyant. However, the lower learner assessments of job-related benefits compared with fabrication schemes could also perhaps be accounted for by the fact that there were greater attempts made to make the schemes relevant, fit particular jobs etc. on the fabrication schemes. The high 'general self-development' score obtained in College J shows what can be achieved, where personal development goals are given a high priority in practice rather than paid lip-service.

285. The reasons why the Mechanical scheme appeared less relevant to the learners' work than was the case in Fabrication schemes, would seem to be:

i. effort put into liaison was noticeably less

ii. the scheme as a whole was experienced more negatively by learners: many more (although still a minority) expressed dissatisfaction

iii. with regard to mechanical trades, the distinction between the operator and the skilled man, while not being absolutely clear was much more distinct than in fabrication. Also there were cases where the operator was highly skilled but in a narrow area, and this was much less common in fabrication.

Distribution Schemes:

286. All the schemes were reasonably successful with regard to personal development aims. However, while job-related benefits depend partly on the success of the college in matching learners' jobs to course content etc., a more direct 'barometer' is likely to be the attitude of the company in the degree of support it gives to the scheme.

Commercial Schemes:

287. The College E scheme was perceived by all participants as emphasizing the development of job-relevant skills, and it appeared successful in these terms.

288. Almost inevitably, the lack of a clear employment base for most Stage 1 learners at College G meant the course was valued by the learners for the way it enhanced personal development, and it was judged according to how useful it was as a course and many of the specific benefits which may accrue to those at work were simply not considered relevant - their prime concern was getting a job.

289. However, on Stage 2 the learners felt that the course offered them little other than a qualification and wider work experience. Again some of these did not have a job, and so felt that benefits did not relate to a particular job. Their lower rating of personal development may have been attributable to the feelings of some that they were going over the same ground. The overall impression was that the learners were judging the scheme, as a course in comparison with others they had done, rather than for its benefits in relation to work.

Food Scheme:

290. This was difficult to assess, since the learners were satisfied with benefits that TRADEC offered, whereas college staff did not feel these were very substantial. The first time the course had been run, a great deal more effort had been put in by the staff and it was felt that achievement was much higher. It was acknowledged that the commitment of staff time and resources was much greater than could be expected during term time. Were the teachers comparing their current experience with too high a standard?

291. As far as Company-based activities were concerned, whether there was a substantial in-company element depended on two factors: (i) the attitude of the college, (ii) the number of employers.

(i) several colleges preferred project-work to be carried out, wherever possible, in the college. The reasoning behind this was to ensure that they had adequate supervision and that it was a worthwhile learning experience. These colleges considered that it was important that the project was related to what the company did, but that did not have to be performed there.

(ii) Where a few companies contributed a large number of students in-company work was likely to be regarded as more feasible.

292. Interestingly enough, at the only two schemes with a substantial amount of project-work carried out in-company, the learners did not regard the course as particularly useful with regard to job skills.

Whereas in the College G Commercial scheme the projects often related to the company rather than a particular job (history of the company etc) and in addition most of the learners were on work experience and were not interested in everything being related to a job they were only doing for 6 months.

293. Overall, as there might be cogent educational reasons why some college chose to do project work mainly in company, then this factor is an inadequate indicator of the strength of college-company links. To this end, what is important is the quality and extent of industrial liaison on this and other issues rather than the location of the project-work as such, (that is the process of choice and the suitability of the project chosen are the key elements, not whether it takes place in company or in college). However, the fact that the employer's resources and equipment may be drawn on, if required, does add an extra dimension to the type of project which can be undertaken.

LEARNER MOTIVATION

Learner Assessments Of Their Own Initial Motivation

294. There were two sources of information about initial learner motivation: the survey questionnaire and interviews with students at the case-study schemes. Data provided by the questionnaire survey indicated that the majority of students thought from the outset that TRADEC did have something to offer.

TABLE 5.7. LEARNERS' REPORTED INITIAL FEELINGS ABOUT TAKING PART IN A TRADEC SCHEME. (N = 439) (Percentages)

enthusiastic	52
willing, but not enthusiastic	40
not really interested	6
reluctant	1
opposed to it	1

295. However, this apparently highly positive response should be treated with caution for two reasons. Firstly, there was a marked increase in those saying they were initially 'enthusiastic' at each stage, where the scheme was generally highly rated by learners. This is illustrated by the Fabrication schemes of Colleges B and C (Table 5.8)

TABLE 5.8. LEARNERS' REPORTED INITIAL FEELINGS ABOUT TAKING PART IN A TRADEC SCHEME: COLLEGES B AND C. (Frequencies)

	Stage	Enthusiastic	Willing	Not Really Interested	Reluctant	Opposed
College B	1	13	11	1	-	-
	2	16	4	1	-	-
	3	10	2	-	-	-
College C	1	15	5	1	1	-
	2	11	6	-	1	-
	3	13	3	1	-	-

296 . In other respects the yearly intakes were similar, so it seems likely that as with each passing year it becomes harder to remember exactly what your feelings were on joining the course, there is a tendency to project back your existing feelings towards the course. Secondly, when reasons were given for selection of the particular response, it was found that the reasons given did not necessarily reflect their attitude towards the TRADEC scheme as such. So the reasons given were grouped into three categories, according to whether the learner saw TRADEC in a positive, neutral or negative light. Examples of some of the responses in each category are as follows:

(i) Positive (i.e. TRADEC is perceived as helpful): needed knowledge for my job; not having a big exam at the end; worthwhile; willing to learn; because it meant serving an apprenticeship; learning a skill; to gain a qualification etc.

(ii) Neutral (or not relating to TRADEC as such): did not know what course was about; day off work; chance to get out of factory; we had to do day school; not sure what qualification could do for me; not bothered as long as I get paid; never like anything to do with school etc.

(iii) Negative (or hostile to TRADEC): any scheme that can be passed just by attending is a waste of time; the time spent at tech is too long (9 - 7.30); its nothing to do with work; rather stay at work - learn more there etc.

With this classification, the overall statistics were as follows:-*

Perceptions of TRADEC initially were

Positive	46%
Neutral	35%
Negative	19%

297 . If these were analysed by scheme and college, there were invariably sizeable minorities who gave 'negative' reasons. When those giving 'neutral' reasons were added, it was clear that sizeable numbers entering TRADEC courses remain to be convinced of the value of the course.

This wariness is partly to be expected because of the prior academic experience of many of the participants, who were often not regarded as academic successes at school and would reflect the worry expressed by some 'that it would be like school'.

298 . To some extent then, this type of attitude among entrants should be welcomed in that it shows that TRADEC is picking up some of its target audience - those who would traditionally be non-participants in F.E. However, another aspect which is less welcome is that the wariness often reflected uncertainty about what the course involved. Only 30 per cent of learners had discussions with their supervisor or training officer about what they might gain from the TRADEC scheme.** At only 6 of the 37 different stages were there majorities who had had such discussions, with most of the remainder having very few instances of consultation indeed. This might not matter if the learners were already highly motivated and the course did not put much stress on the link between college and work.

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* Derived from question 3b(N=377) of the questionnaire for scheme participants
** Question 2c

However, as it stands, current practice is such that there is a real danger that learners will from the outset perceive that college and work are separate, and that those who are at work either do not know or are not interested what happens at college.

299. The importance of this is reinforced by what was discussed during the meetings which did take place. The possible gains/benefits which could have been discussed related either to the learners' job, company etc., or to education and self-development more generally. The benefits discussed invariably concentrated on the former, (72% N=118) and in no individual scheme did significant numbers stress purely educational benefits. Thus where these discussions did take place they emphasized the link between TRADEC and their work in-company almost exclusively. The need for discussions of this nature to stress the relevance of the course was also important given that a majority (55% N=427) were not given a choice as to whether they could take part in the scheme.*

300. Initial attitudes are important. Although they can be changed as a result of the experience of the course itself, it is clear that these initial attitudes will themselves influence the experience of the course itself. Indeed answers to questions concerning changes in feelings towards the scheme**made it clear that the course itself was often judged according to how it measured up to those initial expectations.

TABLE 5.9. LEARNERS RECORDING CHANGES IN FEELINGS TOWARDS SCHEME PARTICIPATION (Percentages, N = 336)

Yes Feelings Have Changed	29%
No	52%
Uncertain	19%

64 per cent of those whos feelings had changed (N=119) changed in a positive direction. The reasons given include: 'realized it helped me more in my work'; 'because I now know more about the course'; 'it is not like school-more relaxed'; 'more practical experience'; 'lot of useful knowledge not just in theory but in practical terms' etc. Many of these points could have been cleared up before the course starts, and of course should be if the triangular relationship is to be a reality. By contrast, those whose feelings towards TRADEC became more negative tended to reflect more on their experience of the course itself, and provide points needing to be discussed at a later stage.+

301. Information from the case study schemes was particularly valuable in examining initial learner motivation, because the students were asked what they felt about the course within a couple of weeks of joining the scheme, whereas the questionnaires were answered towards the end. For this reason information from the students on Stage 1 will be the most valuable, and indeed information from just one case-study will suffice to make the point.

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* Questiomaire for scheme participants, question 2a

** question 3c5

+ See para 30

Case Study 2: Fabrication & Joining Trades Principles. College C.

302. Initially the attitude of the student group was one of almost total hostility: 'you learn more at work - tech was a waste of time; only come because we have to; not told anything about the course before we started; day at tech. was too long (9 a.m - 7.30 p.m); should scrap General Studies; workshop's not that relevant either; best part is the dinner-break!' They felt they had been alienated by school. They wanted to work, and were resentful that they had to come to college. This was an interesting, if perhaps extreme, example. Incidentally, their attitude towards the end of the first stage had changed completely, and they viewed the course as relevant, useful, worthwhile etc. However, the point is made even more clearly here that a lack of information and consultation before the course starts can mean that initial attitudes are resentful and can take some considerable time to change. In particular, the purpose of the different parts of the course, the methods it uses, its link with work and how it differs from school all need explaining to learners, as they are not self-evident. When talking to the learners it appeared that not only would they have valued the information for its own sake, but also because it would have demonstrated that their employer (and the college staff) were interested in their progress.

303. Overall then, results seem to support the view that three-way consultation (not necessarily full negotiation) about the nature, methods and content of the course could have a significant influence on learner motivation. However unfortunately it was rare that students were seen by either of the other parties, let alone both. (The one example of this was the Food scheme operating in College A where this did contribute to higher initial learner motivation, although some of the learners felt they did not subsequently receive much support from employers.)

Learners' Assessment Of Their Own Motivation Later In The Scheme

304. The learners judged their subsequent motivation to be associated with four factors:

(i) the experience of the course itself

(ii) attitudes in-company towards the course

(iii) whether they had clear individual goals (i.e. they knew what they wanted from the course)

(iv) extent to which they were able to participate in decisions about the course which affected them.

Although these may be to a degree interdependent each will be looked at in turn.

(i) Learner motivation as affected by the experience of the course itself:

305 Among the reasons given for a negative change of attitude,* great stress was placed on the failure of the scheme to meet their expectations. For example, reasons given included: 'I though it would go into greater depth; majority of course was done at school; it is boring and you don't learn owt; I can learn more at work; disappointed about course, subjects facilities etc.' Obviously, failure to engage the students interest is a fate which can befall any course for a variety of reasons. However, it

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* Questionnaire for scheme participants question 3c, N=45

would appear that the basic tenets of the TRADEC approach were sound, in that wherever the attitude of more than one student or two students was negative this was explicable in terms of one or more tenets not being followed. Indeed these failures were often clearly perceived by staff as well as students (e.g. failure to relate learning to the students own work; treating the syllabus as fixed and immutable; difficulty in devoting the level of time and resources to the scheme as was required to make it operate well etc.) Nevertheless it was encouraging that so many individual schemes were successful in generating high learner motivation in groups traditionally associated with low motivation.

306 . To accomplish this, however, required a continuing willingness on the part of college staff to adapt the course, to ensure it did match the learners' needs and expectations. At least one college was 'resting on its laurels' in this respect. In this instance, college staff reported how they fulfilled nearly all the basic aims and tenets of the TRADEC philosophy, and indeed they had in the past been held up as a model of good practice. Some students however, complained of lack of relevance and rigidity with regard to the practical work they were required to do. In defence of the college it would be said that the number of courses and students had been so high, that it was difficult (impossible) to retain either the previous flexibility or the innovative zeal of the staff; the course had to 'settle down'. However, when it had 'settled down' the course was taught, and experienced by the learners, much more like a traditional F.E. course.

307 . This raises more general questions concerning the appropriate levels of time and effort which should be put into TRADEC courses, onee they are established. It should perhaps be borne in mind that where it is taught well, and perceived as relevant, TRADEC can induce high learner motivation, but if the course is seen as boring and/or irrelevant the learner response may be even more negative than that of traditional F.E participants, because their previous educational experiences may also have been unsuccessful.

(ii) Learner motivation as affected by company attitudes

308 . Again the TRADEC philosophy was shown to be sound, in that where the employer was involved in a genuine three-way relationship with learner and college, then this had a significant effect on learner motivation (although the converse was also true). However, the practice often fell well short of that required 'in theory'. It has already been shown how failure to explain how the scheme relates to work can result in poor initial motivation.* Subsequently the learners only rarely perceived company staff as directly involved with the scheme:**

- only 28% of learners had opportunities to discuss their own ideas about what they should be learning with company training or supervisory staff (N=417).
- only 41% of learners even had someone to supervise or help with TRADEC coursework (N=440).
- 53% of learners considered their company did not give any credit to employees for effort and achievement on TRADEC schemes (N=310)

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* See paras 298 - 303

** Questionnaire for scheme participants, question46, 9,11a,14a

- there was also very little of the scheme which had been done in company (64% none or very little of their main project, 78% none or very little of small projects and assignments, 86% none or very little of demonstrations and exercises (N=430).

309 Thus it would appear that learners often did not consider there was any substantial involvement of company personnel, but the majority did see college staff visiting their companies (73% had one or more visits N=428) and did consider that the scheme helped them understand their work better (69% N=440).* So while the majority saw the course as relevant to their work, and this may have been sufficient to overcome any perceived lack of interest from the employer, nevertheless a significant minority (31%) considered that the course was not useful to them at work.** It is highly likely that this perception was influenced by the attitudes of others in-company. Once again, it is necessary to turn to the case studies to help substantiate this.

Case Study 3: Distribution & Consumer Trades Principles. College F.

310 Three learners from the same company had very different experiences. All considered the company training officer was keen that they should do well at college. However, one learner at one branch thought the supervisor was very interested in what she did at college and commented on the way in which the supervisor had encouraged the other employees to give the learner any help or support she required. The learner was very keen, and although only on Stage 1 she was already eager to do Stage 3. By way of contrast, the second learner working at a different branch reported that the supervisor had emphasized that she thought that college was of little use and that the learner would be better off staying at work. Also the learner said that 'they never stopped work at the shop', and that all training was done 'on the job'. This learner did not even know whether she would be allowed to continue on Stage 2 (even though this was clearly company policy). She was nevertheless reasonably happy with the course, because she felt it was quite helpful to her work. The learner at the third branch not only found that the Manager and other staff were not interested in what she did at college, but also stressed the differences, 'here we do it this way....' The learner was not very keen on the course. She said she 'would rather not come' (although 'you get used to it'), and that when she was not at college she took her work home and put it away till the next week.

311. Again the example was chosen because it does illustrate the point so well, but it was not typical. The learners' motivation for study had to be strong to overcome indifference and/or hostility from those at work. Another classic illustration of a negative response was that of an employer who had three girls on Work Experience. He offered one of the three a permanent post on condition that she dropped the course!

(iii) Learner motivation as affected by clarity of individual goals (i.e. whether the learners knew what they wanted from the course):

312. Evidence in support of this came from the case studies. Firstly, there were those individuals who had taken the initiative to find out about the scheme, and had subsequently asked their employer if they could have day-release. One example of this is provided by Case Study 3 (CTP Stage 1, College F) The learner had not only convinced her employer of the value of letting her go on the course, but also resisted pressure from other learners who thought that she was working too hard on the course and that

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* Questionnaire for scheme participants question 6 N=440

** after excluding those who were unemployed this reflected badly on them. However, she had very clear ideas that she wanted 'to get on', and that this course could be helpful to her. (Ironically, she was promoted at work, but in her new position of responsibility she could not be released to continue with TRADEC). This type of motivation could be powerful enough to overcome the disincentives of a boring scheme and/or an unhelpful employer.

313. The second group of individuals in this category were those who saw the scheme as a way of attaining a qualification and skilled status, and hence being able to get a better job than the one they were doing. In Case Study 2 (FJTP College C), several learners said that the scheme had little relevance to their present job ('making ventilation ducting all day long'), but that they hoped it would enable them to get a more interesting job in the future.

314. This instrumental attitude was more common in the Engineering than in the Business Zone schemes. This was because of the perception that 'qualification equalled skilled status', held by many learners. Support for this view also came from the questionnaire survey, where 32% (N=356) * of learners expressed the view that the TRADEC scheme would help them get a better job/make it easier to get another job/might help them to get another job. If the scheme is viewed in these terms, then again the individuals motivation may be strong enough to overcome a back of interest from the employer. (Indeed this in itself may act as a spur!).

(iv) Learner motivation as affected by the extent to which learners were able to participate in decisions about the scheme:

315. The significance of a lack of involvement of learners in discussions about the course and what they might get from it, and the deleterious effect this can have on their initial motivation has already been noted.** Similarly a subsequent lack of involvement in decisions which affect them can also be corrosive of learner morale. Indeed the idea of negotiation as a means of ensuring relevance and commitment is a central pillar of the TRADEC philosophy. However, once again the learners revealed that practice was sharply divergent from theory.

316. Only a minority had opportunities to discuss their own ideas about what they should be learning on the TRADEC scheme with their college tutors (39% N=435)+ However, this was an issue on which practice between different colleges/schemes was sharply divergent (ranging from the College A Food scheme and the College P Distribution and Consumer Scheme where all learners considered they had had such an opportunity, to the Mechanical scheme of College E where none had.) If this was related to the findings of the question 'how far do you feel that your own needs and interests have been taken into account by college and company staff in planning the work which you have done in your TRADEC scheme?', it could be seen that of the 77 learners who thought their interests were taken into account 'hardly at all', 62 had had no discussions with college tutors.

317. Courses can be successful, even in the learners' eyes, without these discussions, but they run the risk that the course will appear not to take students interests into account. It shows that, from the viewpoint of the learner and the effect this may have on his motivation, it is important not only that the learners' own needs and interests be taken into account, but that they should be seen to be taken into account i.e., the

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* Questionnaire for scheme participants, question 14b

** See paras 308 - 311

+ Question 4a

learner should be involved directly in that process. There were several instances where college and company staff went into great detail explaining how they had tailored the scheme to fit a learner doing a particular job, by means of a process by which employer and college would agree on certain actions, sometimes without even telling the learner concerned. This was genuinely believed to constitute a 'triangular relationship' in some cases. Without direct involvement of the learner, the process of securing commitment to the course could be much longer than it otherwise need be. There is no doubt, however, that this does involve a change in attitude among some staff, who expressed the view that to involve the learner was pointless, because they did not know enough to know what they wanted.

Motivation As Reflected By Drop-out

318. The wastage rates from schemes were low, ranging between 7 and 14% for all schemes. In this they are close to the wastage rates reported for UVP, and considerably lower than wastage rates for part-time students from conventional courses. Learner motivation is only one factor here. Employer satisfaction is clearly another. In addition, it was very obvious that, in current circumstances, wanting to keep one's job was a key factor moving in favour of continued participation even where motivation was not high. This was particularly apparent in the engineering schemes, and revealed very strongly in the case study interviews. The wastage appeared to be due principally to reasons of redundancy, moving home, etc., rather than dissatisfaction.

Factors Influencing Learners' Decisions To Continue

319. During 1981-82, only Food Stage 1 was on offer. In addition, the Commercial scheme operated its Stage 2 for the first time. Hence attention will be focused here on the other three schemes. Firstly, it is important to remember that, with the exception of College S (which was offering a Stage 1 scheme for the first time) and College J(which only ran a Stage 1 Mechanical scheme) there was an expectation that students would proceed to further stages on the Engineering schemes. Indeed, where there was an expectation of transfer onto another course the total period of learning expected by the learners was even longer than three years. Also it should be remembered that the majority of learners were not allowed to decide for themselves whether or not to take part in the scheme (55%, N=427)* This was reinforced by the response of a significant minority (39%, N=196)** of Stage 2 and 3 students who gave passive reasons for continuing to the next stage (including 'I was forced'; 'had to'; 'it is a 4 year training scheme'; 'its a day off work').

320 . Similarly, with the Distribution schemes companies sometimes received DITB grants on the understanding that the learners followed Stages 1 and 2. This means that the decision to continue need not necessarily indicate either satisfaction with the course nor reflect a genuine desire to continue. For these reasons it may be a poor guide to learner motivation, satisfaction or achievement. However, the responses to questions concerning reasons for continuing did indicate that the majority of those who have continued after doing a previous stage have done so for positive reasons (61%, N=196). The reasons included 'interesting'; 'to reach full qualification'; 'to become fully skilled'; 'to go into more detail of job processes' etc.). Also, the four factors identified earlier (i.e. experience of course; attitudes in company towards course; extent to which they were able to participate in decisions about the course) exert a

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* Questionnaire for scheme participants,question 2d,

** Question 15a

similar influence over the decision to continue, for those who have a choice.

321 Overall then, for the Engineering Zone schemes there is a widespread assumption among learners, employers and college staff that day-release courses for apprentices or similar groups run for three and four years. Proponets of TRADEC have argued that this pattern need not necessarily be followed, but it overwhelmingly is followed and hence there is a widespread assumption that once the learners have started, they will continue, provided they 'pass' the existing course (the nature of the assessment being frequently misunderstood in this context). This assumption would appear the major factor in explaining the pattern of progression - for often the question of whether to continue does not really arise as a decision as such at all. (For instance, even where an employer was dissatisfied it was rare for him to withdraw a learner from the scheme at the end of the stage - the more usual response was not to subscribe to it in future years).

322. More interesting in this respect, were the Distribution schemes, for here there was no expected pattern. While 70% of Mechanical and 76% of Fabrication learners on Stages 1 and 2 intended to take further stages, only 45% of those following Distribution schemes intended to do so.* Indeed, for some of these participants there had been no previous provision at all. Sometimes Stages 1 and 2 were run end-on in a single academic year, and this increased the take-up to the next stage, as even here there was a tendency for employers and learners to think in terms of traditional academic years. Thus where college F offered Stage 2 from September, and Stage 3 in two halves from February and the following September, the major break with regard to the number leaving the scheme occurred during the summer break.

323. Several of the colleges considered that Stage 3 Distribution was aiming at a different target audience (supervisors etc.), and that the scheme should not therefore be judged in terms of the learners' progression through to Stage 3. In fact Richmond was the only college offering Stages 1, 2 and 3 during 1981/82, and they welcomed learners doing 1, 2 and 3 consecutively. As this was the scheme selected for case study, we can examine factors influencing the decision to continue in some detail. One group of 12 students doing Stages 1 and 2 end-on gave the following responses when asked whether they would continue on to Stage 3:

- maybe if I get promotion in future - it is training for supervisors
- don't know (would accept company decision)
- wanted to continue (personal aspirations)
- want to (company would support me in this)
- rather not come, but get used to it (and would come, rather than go to employer and say did not want to come)
- probably, but hoped later stage would be better, probably stop at Stage 2
- look forward to it, more related to work
- do not really want to
- unclear, wanted more information about course
- up to employer, but would like to go on
- would like to go on

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* Questionaire for scheme participants question 7

324 Thus only 4 students were really positive in the sense of wanting to carry on and feeling they would be allowed to continue. However, similarly only one student was willing to say categorically that he would not continue to Stage 3. For the rest, they either perceived the decision as resting with the employer or were themselves unsure whether they should continue. The intentions of others interviewed at College F were similarly problematic. What conclusions can be drawn from this? Firstly, that learner motivation is hard won, and that learners have not only to be convinced of the value of the course initially, but of the value in continuing. Secondly, that the employer plays a significant role and a clear commitment from this direction would remove some of the learners' doubts. Thirdly, there is no presumption by either learners or employers in Distribution that the learner should continue through to Stage 3, and as such there has to be active recruitment at Stage 3 as well as at Stage 1. More generally, the significance of the four factors identified in para 304 , as influences on learner motivation are equally significant in the decision whether or not to continue.

Variations In Motivation.

325 . TRADEC proponents and the learners themselves show a considerable degree of agreement on this issue, although they may express it in different ways. As has previously been shown, the learners judged their own motivation to be dependent on the four factors of; experience of the course itself; attitudes in-company; clarity of individual goals; and degree of participation in decisions about the course. YHAFHE incorporates much of the substance of this in their statement that one one of the intentions in promoting TRADEC is 'to create a working partnership between learner, educator and employer, and through this involvement agree a practical justification for supporting personal development'.

326 . The significance of the four factors for the learners has already been discussed in detail. All of the colleges involved with TRADEC acknowledge the need to make the corse relevant to the learners work and that, wherever possible, the course should have a practical emphasis. Generally, the idea of employer liaison has also been embraced, and while this has not always been as full as either college or employer would like, nevertheless it has invariably been a major advance on existing practice. However, not so much attention has been focused on making sure that the learner is part of the partnership, although here normal practice differs between Engineering and Business Zone schemes. In business zone schemes most of the colleges did seek to involve learners in discussions about what they should be learning. (Interestingly, one of the case study schemes was one which did not, and while the researcher was discussing this issue with the learners, the point was forceefully put by the group that they should have been having this discussion with college staff rather than the researchers!)

327 . The need for explanation and discussion was particularly important, where the connection with the rest of the course or relevance to work was not immediately apparent (e.g. in exercises in communications etc.). By contrast, in the Engineering schemes, little attempt had been made to allow the learners to discuss their own ideas about what they should be learning. The dominant theme here seemed to be that the course was about the acquisition of specific job-relevant skills and as such the college staff knew best what the students would heed to learn. The learners did share the idea that the course was about the acquisition of skills, but nevertheless they often had a whole series of general but

fundamental questions about what they should be learning. This again was revealed by discussions with learners in the case study schemes. For instance, learners on the College A Mechanical scheme wanted to know why they did practical exercises rather than making small tools, which they would subsequently use; how what they learned in TRADEC fitted in with C & G; whether they would be classified as skilled if they just had a TRADEC qualification; the value of a TRADEC certificate; who the course was intended for originally. Overall they had no clear idea about the status of the course, and this generated friction. Besides the general queries, the learners also sometimes questioned why they should be doing particular parts of the course. For example, on the College C Fabrication scheme several students questioned why they should have to do gas welding when this was not used at work and seldom used in industry at all. An explanation that it was appropriate to do this because the same basic principles were involved in some other welding technieques, or even an admission that the college could not afford to re-equip with more modern equipment would at least acquaint the learner with the reasons why he was expected to do it.

328. In addition, it has already been noted that what the learners found most useful or wanted to do was unpredictable in the sense that some found it useful to do things they did not do at work, while others found it most useful to do things that related directly to what they did at work. Obviously this depended on the learners own particular reasons/expectations and motivation towards the scheme, and again some opportunity to discuss these points would at the very least help to clarify the extent to which these were realistic and could be met. From this it would seem that discussions with college staff about what, why or how they were learning and how this related either to their present job or to a possible future job would have been welcomed by the learners. Similarly the relationship with other courses could also have been discussed. Besides the effect that this may have had directly on learner motivation, it may have had an effect on two of the other factors: the clarity of the individual's goals and how the course is experienced. It sometimes appears that, because the college staff themselves have no doubts about the value of the skills they are teaching, they expect this to be self-evident to others, including the learners.

329. Overall the TRADEC schemes are fairly successful in generating high learner motivation, but where they are not it seems that the simplest step to take in order to improve this is to involve the learners more in discussions about what they should be learning on the course. To do this as a first step will have the added advantage that it will bring to light any other blocks to learner motivation, e.g. where the course is perceived as boring; an employer is not supportive; or the course is not meeting an individuals goals or these have not been formulated.

CHAPTER 6: EMPLOYER INVOLVEMENT AND COMMITMENT

330. Employer involvement was investigated directly by means of questionnaires administered to company personnel, case study visits, and selective involvement in college-and company-based liaison meetings. It was also investigated through data supplied by learners and teachers. There are two levels of employer involvement in TRADEC schemes

(a) Involvement in the operation of the system

and

(b) Involvement as 'users' of individual schemes.

INVOLVEMENT IN THE SYSTEM

331 Involvement in the system takes place through membership of the Trades Principles Committee and its sub-committees, through the Writing Groups, and at the level of individual schemes, through the industrial assessment system and respresentation on Steering Committees. The proportion of industrial representation is usually considerably higher in Writing Group composition* than in Committees. Membership of the Trades Principles Committee in the year 1980/81 allowed for participation of one representative of 'industry and commerce'. At this level participation of a committed and enthusiastic industrial representative is secured without difficulty. At Writing Group and Steering Committee levels, however, it was repeatedly reported, as well as evident from Minutes, where available, and the researchers' selective observations, that actual employer participation was substantially lower than that of other participants, and sometimes barely existent, although exceptions to this did exist. One Writing Group Chairman considered it inevitable that, at the 'working' level, participation and attendance of company personnel would be intermittent and that it would be unrealistic to expect a big employer input to writing processes. The important feature of this system, he considered, was that company membership of writing groups meant that employers were kept in touch with the output of the Writing Group and were able to intervene and comment, as they considered appropriate. ITB participation, too, was spasmodic.

332 . The industrial assessment of part of each scheme is the other feature of the system in which employer involvement is sought. Most schemes successfully engaged the participation of company personnel in the industrial assessment processes. Only one of the schemes surveyed did not include assessment by one or more employers.

INVOLVEMENT AS 'USERS' OF INDIVIDUAL SCHEMES

333 . Responses from 133 companies participating in the schemes, recording details of the nature and extent of their involvement in the schemes under survey, and the perspectives of company personnel and their satisfactions with those schemes, provided a means by which the mode of operation of schemes as experienced by the company, could be clarified and confirmed. Claims of the TRADEC approach concerning the ability of schemes to secure employer commitment and effective alignment with needs of participating companies and individuals could also be examined directly. The material compiled from the company investigations also provides a qualitative picture of the circumstances and contexts within which the selection and participation of young people takes place, as well as examplifying the wide range of

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* ie. in membership as opposed to attendance

employer perceptions and priorities in respect of their own training needs, the schemes they use and the functions they expect them to perform.

334. The 133 company responses were divided as follows between types of scheme:

MECHANICAL TRADES PRINCIPLES	30 companies
FABRICATION & JOINING TRADES PRINCIPLES	57 companies
DISTRIBUTION & CONSUMER TRADES PRINCIPLES	29 companies
COMMERCIAL TRADES PRINCIPLES	12 companies
FOOD TRADES PRINCIPLES	5 companies

A selection of responses was obtained from all schemes surveyed. Responses were invited, for each company, from the person with overall responsibility for the participation of employees in TRADEC and, where applicable, from the person(s) with direct supervisory and related roles in relation to company-bsed TRADEC activities.

335. The predominance of small companies in several of the schemes, and the low level of company-based activity beyond that associated with project and assignment work arranged on an ad hoc basis, meant that the involvement of direct supervisors with designated responsibilities for supervision of a company-based, 'component' was the exception, most of the responsibility for the learners participation in the scheme falling on the Training Manager, Works Director or, in some cases, the Foreman. The total number of responses obtained from those in a 'second' level of direct responsibility for the TRADEC activities of scheme participants was 45. The responses from company personnel showed clear differentiation between types of scheme, shedding further light on many of the differences in learner responses, target group and general scheme orientation already identified and discussed. A full profile of responding companies/personnel is given in Document 3.

Mechanical Trades Principles

336. The thirty companies from which responses were obtained ranged from small(< 30 employees), light engineering companies to multinationals such as ICI. Details provided by responding companies of the groups of employees selected for participation in the scheme, and the criteria applied in their selection, represented the full variation of skill level and breadth identified in other parts of the survey, from the machine operator to the craft apprentice.*

337 In approximately one half of cases, it was reported that the groups of workers selected for TRADEC participation had previously been involved in alternative courses and schemes. The City and Guilds Iron and Steel Operatives Course was mentioned in 5 cases, and City and Guilds Craft Studies Courses in 9 cases. Production trainees and operatives predominated in the returns obtained from companies in the schemes operated

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* Note that the term 'apprentice' is used by employers both for those in preparation for fully skilled craft functions and for production trainees whose conditions and training fell short of full apprenticeship.

by Colleges G,J and M. The set of companies participating in the College A scheme showed a balance, in respect of the groups of workers selected for participation, between those designated as operators and those designated as 'apprentices', the 'apprentices' proceeding, in many cases, to City and Guilds courses (usually Year 2 para 2) following directly from the three stages of TRADEC. College H companies described the groups of workers selected as 'apprentices' in all cases. In one case the learner was described as 'apprentice on Production' and differentiated from those on full apprenticeships who received 'off-the-job' training in the company training centre. City and Guilds Craft Courses had been used previously by the majority of these companies, and placement on TRADEC had been undertaken by the college. Few employers were aware that the scheme in which they participated was in any way different from previous craft courses.

338. Seven of the responding companies reported that the learners undertook part of their scheme within the company. Of these, four stated that a period varying in length between 2 and 4 hours per week was given for in-company TRADEC activities. Two reported that between 6 and 8 hours per week were given. Another responded that 'whatever time was required and considered reasonable for completion of project work to a satisfactory standard' was given. Two of the 23 companies which had reported that 'no part of the scheme was undertaken on employers' premises' did add that occasionally, if the project could not be completed at college, some time would be given at work.

339. Of those engaging in company-based activity, the Works Manager or Training Manager was most frequently named as the person involved in the the planning and implementation of in-company activities. Line supervisors and instructors were involved in some large companies. In cases in which supervision was given, this was in most cases automatically given by the direct supervisor to the employee; the only two cases in which an Industrial Tutor was mentioned were cases in which the UVP model was dominant. Many companies which had reported that no part of the scheme took place in the company indicated that direct supervisors had a degree of responsibility for supporting and keeping an eye on the young person's 'day release'.

340. On questions concerning means by which linkage was secured between in-company activities and college-based work, all companies mentioned periodic meetings between the college and the company, four mentioned visits to the college to observe and familiarise themseves with their employees' college work and seven mentioned continuing discussions between company personnel and trainees, on their work and progress. The frequency of responses to these questions given by companies not providing company-based activity suggested that in several cases a similar level of liaison meetings, college visits and discussion with trainees took place in order to secure relationships between college work and the young person's day-to-day learning through experience on the job.

341. The degree of college/company liaison and communication achieved was generally welcomed and positively regarded. An average of two or three liaison meetings during the course of each stage were recorded by approximately two-thirds of responding companies. Four or more liaison meetings were recorded in three cases, one of which may be considered essentially to be a UVP scheme adopting TRADEC materials and approaches, (as opposed to a TRADEC scheme drawn under the UVP umbrella). Only four

responses suggested that company personnel had not been sufficiently involved in discussion of the scheme. One Works Manager commented that he would have responded positively to any opportunity to make an input. Another, by contrast, felt that it was not appropriate that the company should 'have a say' since the course was 'primarily an educational experience'.

342. Two-thirds of companies reporting no company-based elements presented a picture of having been involved actively in the scheme in the sense of having 'helped the college to meet their needs'. Several companies, however, reported that they were happy to leave things to the college and didn't want to spend too much time on discussion. In the outcomes of liaison looked for, recurring items were

- 'understanding by the college of our needs'

- information about trainee progress

343. On questions of the relevance of the scheme and its alignment with needs, approximately two-thirds of responses indicated good alignment; the remainder were of the view that the scheme was well aligned with individual needs, but that company needs were not really met.

344. Achievement and progress in the scheme was considered satisfactory by 23 companies. Three recorded dissatisfaction - 'they don't make as much progress as they should.' Four others were neither satisfied nor dissatisfied, having little knowledge of progress made in and through the scheme. One Training Officer commented that the 'degree of skill achieved at any point was greater with TRADEC students compared with those recruited before TRADEC was available'. Weaknesses identified were those associated with 'trying to cater for too wide a range of academic interests', lack of an assessment system which stretches young people and makes them want to achieve, inclusion of 'irrelevant' subjects and the usual and familiar complaints about Social and Life Skills, where this was handled as a separate element. It was noted that many respondents were not familiar or even moderately informed about the scheme programme, although liaison was generally regarded as good. It was clear from several responses that the prime function of liaison was all too often seen as informing the college about company requirements rather than gaining insights into the operation of the scheme and supporting the young trainee.

345 In the general appraisals of strengths and weaknesses, features attracting positive comment were the schemes' emphasis on the practical application of learning, on the opportunities for company involvement in choice of project work, the particular contribution made by the scheme to the training needs of the small/medium-sized company, its capacity to impart skills across a wide range of student ability, and the better liaison and communication than that which had been experienced in conventional courses. 'Flexibility of topics', broad-based subjects' and 'depth of tuition' were also mentioned.

346. The Training Manager of a large light engineering company commented that excellent progress was made: 'the work-related skills are better understood when taught in an unpressurised environment. The lecturers, by visiting our Company, can assess basic needs and arrange training accordingly.' Two others considered that the course was made too easy for

the learners and presented no challenges to the young people. This adversely affected progress, they claimed. One Training Officer of a large company (Company M1) reported that he was 'quite pleased with achievement but as far as we are concerned it is a four-year Course in City and Guilds, the fourth year being viewed as an integral part of the course', while another reported that it 'reached 80% of the standard of City & Guilds', a level considered appropriate for the Company's purposes.

347. Company M.1, a medium -sized (150 employees) founders and engineers suppliers to NCB of headgear pulleys, haulages, etc., provided an example of the TRADEC scheme, supplemented by City & Guilds 205, Part II, Year 2, being used to train fully-skilled craftsmen*. The Company, a regular user of the College A Scheme, also sent one or two young workers on EITB off-the-job training and modules. There was, however, no distinction between the type of work done by these workers on completion of their apprenticeship, and that done by those following the TRADEC route, and the Company was unable to offer criteria they used in deciding who to involve in which type of training.

348. School attainment determined whether employees were placed on TEC or TRADEC. It was considered that Craft Studies was insufficiently practical and that, prior to the introduction of TRADEC, a better grounding was given by Craft Practice. Those doing TRADEC automatically proceeded to City and Guilds 205, Part II, Year 2, and could proceed either to Part 3 or to TEC. The Training Officer saw college and work as completely separate. 'We train the apprentice so he can go anywhere as a skilled fitter or turner' - this was necessary to Company needs since most of the work involved 'one-offs' and little repetition. Apprentices undertook normal production work. By the nature of the Company, this involved working on one-offs, and a large training element was involved. As far as Company involvement in the TRADEC scheme was concerned the Training Officer did not see this as extending beyond general encouragement and interest: 'giving then an interest to make them go'; 'encouraging students to continue'. There was no direct input in respect of the work covered in the scheme, which the Company saw as 'helping to supply the basics', a process it was happy to leave to the college. Consultations had taken place only over the project. Projects undertaken by employees had included, e.g. making a crankshaft. The Company had found this feature of the scheme 'quite useful'. The Training Officer was pleased with the level of achievement given that, as far as the Company was concerned, it was a four-year course, the fourth City and Guilds year being regarded as integral. It was clear, here, that college/company relationships were operating along almost completely traditional lines. TRADEC was seen as the most appropriate course because of its greater practical content, but other than that its operation with this Company did not represent other features of TRADEC philosophy. As a direct and automatic feeder to City and Guilds, the scheme was definitely for apprentices, not operators, in this context.

349. A second example represents the scheme in use with the intended target. Company M2 (1,630 employees), involved in the manufacture of cutting tools, had participated in the College G MTP Scheme, involving 10 young production operator trainees in the year of survey. The Company had previously engaged this group of workers in City and Guilds engineering operatives schemes and, as a large Company, used a very wide range of other courses, ranging through City and Guilds Craft Studies BEC, TEC, Higher TEC,

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* Trades Union and safety considerations required fully skilled status.

BSc Engineering, as well as a range of Management courses. No part of the TRADEC Scheme was undertaken in the Company unless, in exceptional circumstances, an employee was unable to complete project work in the college. The project work was linked directly to the learners job, and Training Officer, Training Instructor and line manager to the employee undertaking TRADEC were all involved in consultations and support of the link between the college-based and the learners work. The Training Instructor had four meetings per scheme with Company personnel to discuss trainee development and progress, projects and trainees individual needs. He was satisfied with this level of contact. The direct supervisor, however, met college staff only once per scheme and considered this to be inadequate.

350. Different perspectives on the schemes' strengths and weaknesses were presented by the Training Instructor and the supervisor. While both considered that liaison and cooperation between college and company was good, the Training Instructor considered that the scheme supported 'good personal development' of the trainees, achieved relevance through linked projects and assignments, but that its weakness lay in its attempt to cater for too wide a range of academic abilities. The line supervisor (16 years experience as a supervisor, 34 years in the engineering industrry) considered that while the scheme gave 'an insight into general engineering aspects' its weakness was that it was too generalised and did not always fulfill specialist requirements of companies. He did, however, consider that the scheme helped to 'develop character' and potentially more 'loyal' employees, who responded to the Company's interest in their development.

351. A small company user should be illustrated here to provide a balanced picture: Company M3, a small (20 employees) hydraulic and precision enginering company, involved apprentices and production trainees in the 18-20 age range in the College M Scheme. These groups of workers had previously been involved in City and Guilds Craft Studies, until 1979. Two employees were involved in 1980/81.

352. Part of the practical project work was undertaken in the Company, geared to production of items for eventual use in the works environment. One day per week was given for these activities. Direct Supervisor, Works Manager, and Director were all involved in aspects of the planning and implementation of company-based TRADEC activities. While there was general satisfaction with the progress in work-related skills of participants, there was some dissatisfaction with the capacity of the scheme to align itself to the specialised needs of the Company. The Company Director, in commenting on the extent to which a working partnership existed, observed that: 'The College usually consults us but hardly ever vary the curriculum to produce instruction in line with the works environment'. The treatment of broad-based engineering subjects was considered to be reasonably good, but the scheme was seen by the Company to lack appropriate specialisation and insufficient practical instruction. It was not always in the best interest of the employee to have a broad-based curriculum, it was argued, revealing some of the special problems of the smaller companies operating outside the mainstream, which the TRADEC system is intended to serve.

353. The final example is provided by Company M4, a large glass manufacturing company, (2,000 employees) which responded to the survey with reference to a UVP scheme based in content on Mechanical Trades Principle, Stage 1. The Company had been closely involved in the desing of the scheme, coordinated by College A, and the Training Manager of the Company was also industrial assessor to the standard MTP Scheme, which was offered in parallel with the UVP scheme. The latter scheme was temporarily in abeyance at the

time of the research, through 'lack of support', attributed by the Company to the 'effects of recession on the availability of suitable employees'. The case provided an interesting comparison between TRADEC and a UVP scheme adopting Trades Principles content. It has been included for this reason.

354. The Company had involved four of its employees, machine operatives between the ages of 16 and 19 years, during 1979/80. These young workers had, before the introduction of the UVP Scheme, been involved in in-company courses 'related to the requirements of their jobs', e.g. Technology, Health and Safety at Work, etc. The Training Manager considered that liaison between the college and the Company, in respect of the UVP scheme, was good and stated that he was actively seeking good integration of the in-company training and Further Education components through these liaison contacts. The Training Manager engaged in discussions with college staff once or twice a year. The Training Instructor designated as Industrial Tutor (by virtue of the UVP association) had meetings with college staff five or more times during the course of the scheme, for purposes of review of progress and linking of the scheme components.

355. All participating employees undertook company-based training as part of the scheme. Logs of training activity were kept as an instrument of recording and monitoring the progress of in-company activities. Eight hours per week were given to the company-based component. The Training Manager, Senior Training Instructor (Industrial Tutor) and line supervisor to the participants were involved in the planning and implementation of scheme activities. Participants received continuing supervision, formal instruction and general guidance and support. Weekly meetings were held between scheme participants and the Company supervisory and training staff to discuss progress, and visits were made by Company staff to scheme participants in the college setting, at 3-weekly intervals. There was also an end of course review of both in-company and college elements.

356. The Training Manager was clearly satisfied with the process and outcomes of the scheme. The Training Manager stated that the scheme employees and Company's needs

> '..... very well - the individuals needs were taken into account before designing the content of the course, and the Company were involved in the work of the Steering and Course Committees'.

The scheme, it was considered, had increased the participants' knowledge of engineering principles, particularly in relation to their specific job, and had provided an opportunity to broaden their knowledge of other activities within the Company. The Industrial Tutor reiterated these observations, commenting additionally, that the gain to the Company had been

> 'Employees with a greater commitment to their duties and responsibilities'.

The Training Manager and Industrial Tutor were very satisfied with progress in work-related skills and comented that the 'Outward Bound' element of the scheme had been important in developing leadership and in promoting recognition of the importance of team working. The only difficulties had been encountered in fitting the scheme with shift-work arrangements.

357. The working partnership between the college and Company, which was considered to be exceptionally good, was seen to stem from a relationship

which had existed for many years, through personnel having attended the college at some time for courses of Further Education, and also through some college lecturers having worked in the Company prior to entering teaching in Further Education. The major strengths of the scheme centred on this liaison process, in the view of the Training Manager, and, in the case of the Industrial Tutor, on the involvement of the company in the design of the scheme - an involvement which had, in his view, ensured its success. No weaknesses were identified by either respondent. The Training Manager did comment, however, that the success of the scheme depended on college staff being 'fully conversant' with the Company activities and the nature of the work of the trainees'.

Fabrication and Joining Trades Principles

358. The workers selected for participation in the scheme were, without exception, presented as apprentices, although responses from some larger companies proceeded to draw distinctions between those allocated to this scheme and their 'proper' apprentices following EITB training. Several companies were using both TRADEC and City and Guilds Craft Studies Courses. Different placements were as often related to perceived academic abilities of the workers as to the skill levels and ranges of their ultimate jobs. None of the responding companies were selecting workers designated as operatives, although such workers comprised part of the workforce in many of these cases.

359. Of the 57 companies providing responses, 15 reported that part of the TRADEC scheme was undertaken at the company base. In 13 of these cases, the company-based element consisted entirely of project work. In the other two cases, a training programme accompanied by periodic testing, and a job notation programme, respectively, formed the company-based components. In these 15 companies there was, again, no uniformity in the types and levels of personnel responsible for, and invovled in, planning and implementation of in-company TRADEC activities. Personnel named ranged from line supervisors to Works Managers, Production Directors and General Managers. In the small companies, the Production Directors, or equivalent, frequently had sole responsibility. In the larger companies both line supervisors and Works Managers were most frequently involved. There was some incidence of use of 'skilled tradesmen' working alongside the 'trainees', in supervision of TRADEC projects. No instances of this were found in companies responding in respect of Mechanical Trades Principles.

360. Regular time was allocated to TRADEC activities in five cases; two companies gave 8 - 10 hours per week, two gave between 4 and 6 hours and two between 2 and 4 hours per week. The remaining 10 companies concentrated time in the project period. Periods of between a total of 10 hours and 40 hours were reported in these cases. Two companies reported that no special arrangements were made to co-ordinate and integrate the company-based and college-based elements. In one case this was the main criticism of the operation of the scheme made by the Company. In 13 cases periodic meetings between the Course Tutors and Company personnel in supervisory or training roles were reported as a means of ensuring 'linkage'. In 8 cases regular discussions and reviews of activities and progress between scheme participants and supervisory training staff were reported to be used in this way. In 3 cases regular visits to the college to observe participants' work in the college setting were reported.

361. Approximately one quarter of the companies which were not engaged in company-based activities, as part of the TRADEC scheme, reported attempts to link their usual forms of training and/or experience with the progress of work in college, mainly by keeping in touch with work/skills covered and providing opportunities for breadth of experience, and for practice and application of these, where feasible. It should be noted that trainees in these cases, given job rotation, sometimes complained that even though they were moving around they were performing very similar tasks over a narrow range. In the remaining three-quarters of cases no such attempt was made. Where systematic, or other training was undertaken in the company, it was regarded as separate and difficult to link without substantial expenditure of time. In several cases the 'college experience' was clearly regarded as a very minor supplement to the experience and training (often on the informal 'environmental exposure' model) received in the company.

362 Employer involvement in the form of participation in discusssions, choice of project work, and provision of materials was generally high. The liaison and communication with the college was welcomed, and was considered by all but three responding companies to be at least satisfactory and, in some cases, excellent. The highest frequencies of neutral or negative responses in respect of liaison were found in the scheme with the largest number of participating companies, illustrating the problems, encountered by schemes engaging large numbers of small companies, in achieving satisfactory liaison without the expenditure of an unacceptably high amount of time in liaison and administrative work. However, the other scheme involving a large number of companies (College C) was almost unreservedly applauded by the companies for the degree of interest, commitment and active liaison efforts made by the Course Tutor.

363 One Training Officer complained of what it claimed to be the inability of the Course Tutor to understand company needs despite liaison commenting -

> 'I find the liaison we have had to be awkward in the fact that the scheme representative is unable to grasp what the Company requires, i.e. a competent, practical course, not a technical wizard course.....'

In their assessments and appraisals of the scheme, respondents revealed quite specific areas of satisfaction and dissatisfaction with the scheme. In answer to questions concerning relevance of the scheme, and its capacity to align itself with Company and individual needs, 26 company responses indicated that effective alignment had been achieved. Twenty-four considered alignment to be 'fair' but commented in many cases that they appreciated the difficulties in obtaining full alignment in schemes involving several companies. Only seven complained that alignment was poor and that the scheme had failed to meet either their needs or those of the employee.

364 'Typical' responses in each of these categories, which serve to illustrate the range of concerns, are reported below:

Small Company making shoring equipment for Civil Engineering:

> The Director considered the TRADEC Course the best available from the Company's point of view. The Course did cover what was necessary, and although 'it covers stuff we don't do or

need' this is accepted as being important from the individual point of view. 'More than enough', as far as the Company is concerned.

Large Transformer Manufacturer:

> 'The scheme meets all our needs. But the individual loses out to some degree, compared with 'off-the-job' training associated with a large company'. .... 'the scheme doesn't meet individual needs for progression'.
>
> 'The scheme is not meeting the Company's needs - two lads had to be sent on another course after TRADEC to improve their skills. The scheme is not meeting young people's needs either - it gives them the basic idea but then goes over their heads - its pitched at too high a level on the 'technical' side'.

Small Sheet Metal Company:

> 'I am not entirely happy with the TRADEC Course - it is not detailed enough. By the time they have finished, apprentices have not learned enough in any one particular area. We would like to see areas covered more intensively - for example, we would like to see more emphasis on the interpretation of drawings. The basic TRADEC ideas are sound - practical-related and involving the Company. It goes further than other courses in this respect'.

Small Sheet Metal Company:

> 'From the employers point of view the course is very forward-looking. ...... 'it is very up-to-date and moving with the times'.

365. It was noticeable that 'affective' dimensions were far less frequently mentioned by companies in the Fabrication area than was the case in companies engaged in Mechanical Trades Principles schemes. In answer to questions concerning learner gains and benefits, the answers were predominantly concerned with practical skills and 'background' theory to these skills gained, although some did mention a more serious approach to work and a greater interest in their jobs among young employees participating in the scheme. 'Flexibility' and 'realism' were mentioned by two companies. It was clear that the majority of companies saw the scheme principally as a kind of substitute apprenticeship emphasising development of technical skills/transmission of knowledge, rather than a broader preparation and development of the young person.

366. On questions of achievement and progress, 28 of the companies providing responses considered that progress in work-related skills was good and that achievement was generally satisfactory, according to the variety of different criteria they adopted to assess this. Twenty companies considered progress and achievement to be 'fair' several commenting, as suggested by the responses concerned with alignment, on the slower progress, and lower levels of achievement in specialised areas than they would like. Others commented that the schemes didn't put enough

pressure on the youngsters, and didn't stretch them. Accusations of 'time-wasting' at college were confined almost exclusively to this scheme, as were the traditional complaints about English and Social Studies. In the case of the College C scheme, extra workshop sessions had been introduced, going on into the evening, as a result of the demands which featured strongly in the company responses to the survey.* The scheme participants' view of this was that the day was far too long and this was the main complaint about the scheme, (interpreted by some companies as yet further evidence to reinforce their belief in the general softness and lack of backbone in the youth of today) The atmosphere in the workshop in the evening was not one of high motivation. (The research team conducted some of its interviews during evening workshop sessions).

367. The observations of participating companies on the 'working partnership' feature were generally positive, as in the case of Mechanical Trades Principles. Twenty-two companies considered that the scheme had operated fully and effectively as a working partnership and welcomed this as evidence of a new trend in Further Education. Nineteen considered that a working partnership had been achieved partially - many of these considered that it was really a two-way partnership with the learner little involved. Seven considered that working partnership had not been achieved and were critical of the scheme on these grounds. A further eight did not consider partnerships to be necessary or appropriate - they just wanted to send the youngsters to college and to let the staff there do the job they thought necessary. It was noticeable that among participants in the College L scheme there was a greater range of satisfaction and dissatisfaction than was found elsewhere within the same scheme. There were more cases in this scheme of companies not seeking to engage in any form of working partnership, seeing the college as a very minor (and often poor) supplement to their own training. There were, on the other hand, instances of companies which had never before been attracted to Further Education, who were completely 'sold' on this scheme. The following cases have been selected to provide a picture of the range of companies using the Fabrication scheme, including two contrasting examples drawn from the College L Scheme.

368. Company F1: Container Manufacturers, (350 employees) had six trainee welders involved in the scheme. The TRADEC participants did undertake company-based work as part of their scheme, being involved in full product manufacture of water cylinders, in mild steel. Thirty to forty hours/year were given for this work. The Works Manager and direct supervisor were responsible for its execution. Four meetings/year were held between the Company and College staff, to obtain relevance of the scheme to the Company's needs and linkage in respect of in-company activities. One to two visits per term were made by Company staff to the College and there was a weekly review, with the learners, of their progress.

369. The main strength of the scheme was seen to be the project, which involved development of the product involving all aspects of production methods. This approach was seen as meeting individual needs, in developing relevant skills, and company needs in making a saleable item. By this means, level of skill was both 'raised and tested'. Affective gains in the establishment of pride in work and the capacity to see a job through to its end were also seen as important. The Foreman, involved in supervision, instrction, general reviews of progress and assessment, was enthusiastic about the scheme, which he considered achieved good application of education to work and training. All personnel involved were highly satisfied with the progress and resutls.

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* See Case Study Report 4, Chapter 10

370. Difficulties over learner motivation and in securing learner participation in the 'working partnership' were noted. (This represented one of the few companies to comment on the 'learner' dimension of the relationship.) The general cooperation and partnership which had been achieved between the Company and College was welcomed, and the Company clearly looked to the contact not only as a means to get the College to understand its requirements, but also to gain information on training trends and to discuss the participants' development in broader terms This case certainly illustrates intended TRADEC operation and outcomes in respect both of tangible learner and employer gains and of alignment.

371. Company F2: A Garage (20 employees) engaged in repairing motor vehicles and overhaul and reconditioning of aircraft ground equipment, provides a further example of interest. This company involved one 'apprentice' in the College C scheme. The company had chosen not to be involved in the scheme in the sense of 'partnership', but welcomed the opportunity to give advice where this was necessary. The in-company 'training' of the learner consisted of on-the-job experience, and no attempt was made to coordinate this with the college-based scheme. However, the scheme did fit with the firm's requirements, and as the learner became more proficient in welding he was given progressively greater and more varied practice at work.

372. The Company considered that the specialisation in panel beating was an important and attractive part of the scheme. The project had been found less useful than in other schemes because the Company was involved in repair work, rather than manufacturing, and had 'found it difficult to come up with anything'* The project finally selected was the production of a tin battery box. The progress of the learner was compared favourably with that achieved on Motor Mechanics courses. TRADEC 'seemed to be able to do something week by week', whereas the motor mechanics course seemed to be a 'long haul', with the goal a long way off. The more immediate aims of TRADEC were seen as attractive.

373. The scheme was, here, viewed from a very traditional perspective and against traditional criteria used in respect of day release. There had been nothing in the Company's contact with the College or the scheme which had suggested to him that this was in any way a new model of, or new departure in provision in the fabrication field - a widely recurring phenomenon in the Fabrication and Joining Scheme.

374. Company F3: A Sheet Metal Company(20 employees, including 3 apprentices) illustrates disatisfaction arising from misconception. The Company's first apprentice was placed on a TRADEC Fabrication and Joining Scheme in 1976. A Company Director initially returned the research questionnaire claiming that the Comapny only had 'apprentices on day release release at College B and therefore knew nothing of the scheme under investigation. On follow-up it was revealed that the Company, which in 1981/82 had three employees engaged in the scheme saw the scheme as nothing other than a traditional day release course for 'apprentices', directed towards skills training. This perception clearly established their expectations of the scheme, with which they were dissatisfied. The Company was unhappy with what they considered to be the over-emphasis on technical subjects and on English, and considered that insufficient time was spent on sheet-metal pattern development. ('These lads were not technically-minded'). The apprentices only got the basic idea at college and certainly learned more in the shop. In other words, the Company was bringing very traditional

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* See para 204 for a Course Tutor's comment on the pressure to produce bits of metal

criteria to bear on a scheme which they perceived to be a traditional day release course of the Craft Practice type, producing the very familiar complaints that have come to be associated with day release. Company personnel did perceive that there were some limited opportunities for them to make suggestions to the college, with which they had contact approximately once per year. There was no sense of working partnership.

375. These perceptions are of importance, given the practice of automatic placement of 'apprentices' or production trainees on TRADEC where they are not receiving complementary training. This Company's needs were clearly not being met, the type of course being looked for was one which would result in the Company's primary aim of trainees 'coming out of their time with a full knowledge of and skills in pattern development'. This perception was by no means untypical. While there is the question of the appropriateness of the Company's assessment of its own needs and those of its trainees, the working partnership and acceptibility to employers needs through effective alignment was clearly not working - a point which requires examination in schemes which engage in automatic placement of some categories of 'apprentices' on TRADEC, without clear communication with the Company.

376. Also of interest is the experience of Company F4: a small General Sheet Metal Company, (12 employees, including five sheet metal workers, one welder, three apprentices, and three semi-skilled quillotine operators). This company had chosen to involve its apprentices, and not its semi-skilled operators, in the College L Scheme. Again, the Company had not been party to the decision to place the apprentices on TRADEC - 'it just happened'.

377. The Company was engaged in a wide range of general sheet metal work. Apprentices were trained by each working under the supervision of a tradesman, gradually undertaking progressively more difficult tasks. The Company was not happy with TRADEC. The Director, in particular, was a firm believer in the City and Guilds courses, and complained that TRADEC was a poor substitute, appearing 'very loose on the teaching side'. Both company and employee needs were considered to be better met by City and Guilds than by TRADEC. The assessment was considered to be inadequate - 'everyone appeared to be 'reasonable' even when they were clearly not' and learners progressed to Stage 2 even when they had fared very poorly in Stage 1. The information provided by the Certificate was regarded as poor, in comparison with that given by a City and Guilds Certificate, which, it was considered, at least conveyed something of standards. The only strength of TRADEC was considered to be the contact with the college ('with City and Guilds they were there and we were here, and we would never meet'). Regular discussions had been held with the college and criticisms offered by the company had been acted upon.

378. Here again, the whole course was being judged in terms of City and Guilds and apprentice training - the course was judged on the inadequacy of what was learned and it was evident that the company was looking for a supplement to the practical training which was undertaken on-the-job in the company. The danger of automatic placement to TRADEC, without consultation, is again illustrated.

379 This company experience of TRADEC may be contrasted with that of Company F5: a small company with (20 employees) making mechanical handling equipment. The company had little direct involvement in the scheme, other than in duscussion of project work, but considered that the college had been very cooperative in responding to suggestions when they had arisen.

The scheme had been effective in giving participants skills and experience over a much wider range than they were able to gain in their day-to-day work on production. The scheme was seen by the Works Director as 'broadening them out' and its practical orientation was welcomed. The general view of the course was that it was successful. Comparisons with City and Guilds were favourable, in contrast with Company F4. It was considered inappropriate for learners to proceed after Stage 3, but the scheme was seen to be important in itself, in meeting needs at below craft level.

380 . Finally, an example of a company assuming automatic progression to City and Guilds is required. Company F6: a Sheet Metal and Heavy Fabrication Company with (60 employees) The Works Director was an industrial assessor to the TRADEC, and enthusiastic about the TRADEC approach - he was 'highly satisfied' with the scheme, which he considered to be a great improvement on previous courses. Participants took two stages of TRADEC and then proceeded to two years on City and Guilds Craft Studies. This was seen as an improvement on following City and Guilds alone, since the latter was seen as 'no craft, all theory'. It was the practical element of TRADEC which was seen as important.

381 . Employer commitment and involvement was substantial. The Company had asked for certain specialised elements (e.g. the Works Manager had remarked that there was no lock formation on the course - this had been incorporated immediately, and all of the first year group had visited the Company to see how it was done). The Company had also participated in selection of topics and in discussion on project work. For learners on the sheet metal side they had asked that the projects be based on 'robots' - an exercise piece, but incorporating all the marking out and all the jointing the Company required. Company personnel tried to keep in touch with what was being done week by week in college, by discussion with learners, and individual attention was given to learner progress. The company/college liaison was, therefore, extremely good, However, the learner had, within the working partnership, a much more circumscribed role, receiving, in the main, what the other two parties considered appropriate for him.

382 . Although the Works Manager had been an industrial assessor, and had therefore seen project and written work, he clearly did not have a full understanding of the assessment process.

Distribution & Consumer Trades Principles

383 . The categories of workers selected for participation in the scheme were named as retail 'trainees', 'sales assistants', 'warehouse staff' and, in the case of Stage 3, 'management trainees'. In approximately half of the companies all young workers falling into the named categories were either offered the opportunity or 'sent' on the scheme. In others, selection was made according to 'attitudes', 'interest' and/or 'potential' of the young employee. In only one case had an alternative course been used for the group of employees in question. The workers were junior management trainees and the course was the Certificate of Distributive Management.

384 . Of the 29 companies providing responses, 14 reported that a company-based element was provided as part of the TRADEC scheme - a substantially higher proportion than that represented in the MTP and FJTP responses. The

company-based element consisted of project work, including, for example, group and individual projects based on stock control, product information, investigations into brands problems, etc. Three companies had developed job rotation programmes, and one had constructed a training programme based ont he DITB 'Work Book'. In five cases time was allowed, on a weekly basis, for in-company activities. This varied from 2 to 4 hours/week in four cases, up to 10 hours/week in one case. In other companies, blocks of time were provided for project work, ranging in total from 4 to 25 hours.

385. Comparison of these results with those provided by the learners suggests a bias towards those companies providing in-company elements in the sample of responses, only 32 per cent of learners in Distribution and Consumer Schemes reporting that any substantial part of their scheme was undertaken in the company. This disparity can also be attributed to the different perceptions of parties to the process, concerning those activites which may properly be considered part of the scheme, and those which may not. This disparity has also been noted in the NFER evaluation of UVP.* It was particularly apparent in the case of the College F Schemes. Two of the companies supplying the greatest numbers of participants had substantial in-company programmes which had predated the TRADEC development. Training Managers of both companies, enthusiastic supporters of the TRADEC development had attempted, on adoption of the TRADEC scheme, to link the programmes based on induction and job rotation to the college-based scheme by, for example, special talks to tie in with the course and regular reviews of progress with the participants. The participants, however, considered the in-company programme as the companies' standard training, separate from and unconnected with the TRADEC scheme. They saw any 'tie-up' as coincidental rather than planned. The Course Tutor, too, considered that the task of linkage and integration between the college-based TRADEC scheme and in-company programme was impracticable within available resources, and regarded the two programmes as separate. The NFER evaluation has already noted that the existence of standard training programme prior to the introduction of UVP tended to militate against the development of a 'unified' programme.

386. In respect of linkage and integration with the college-based programme, three companies reported that no arrangements existed to co-ordinate the two, and that communication was poor. Twelve companies reported that periodic meetings between company and college staff were used to maintain linkage. Five reported that they visited the college periodically to keep in touch with the learners' work, while ten reported regular meetings and reviews between supervisory/training staff and the scheme participants - a notably higher proportion than that found in the Engineering schemes. One company saw the ITB as the principal linking 'agent'.

387. There was, in general, an impression of higher commitment to training in the retailing companies. While this was not surprising in the case of the larger stores and chains, it was unexpectedly apparent in a number of smaller establishments. The DITB grants were undoubtedly having their effect. There was also greater uniformity in the pattern of involvement of company personnel found in the schemes. Most of the larger establishments engaged in schemes comprising in-company elements were characterised by active involvement of both the Training Manager and line supervisor. In two cases instructors were also involved. Of those companies

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* NFER, 1980

which did not provide a company-based element, approximately one-half claimed to have their own in-company programmes involving induction/rotation/training. It was noted from interviews that many regarded the college course as peripheral and a very much less important part of the young employees' preparation than their own programme.

388. Discussions held with a group of large Sheffield employers in Distribution revealed some interesting attitudes:

1. Generic training was regarded as difficult and the training staff involved did not seem to pick up on the possibilities TRADEC offers.

2. In recruitment, employers were often looking for certain 'abilities', which are readily affected by courses of Further Education: communication, confidence, dealing with percentages, etc.

3. The TRADEC type course was generally more acceptable than conventional courses in that the company can have major input into the scheme and therefore strongly influence their young employees performance. The discussion, however, conveyed the impression that whatever happens at college is considered incidental. There was certainly no groundswell in support of TRADEC present among the larger employers.

4. Placement and allocation to schemes would appear to take place on the basis of ability (with TRADEC 'at the bottom') although some disquiet about BEC was in evidence.

389. The processes and value of liaison and communication between the college, company and trainee were less positively regarded in responses obtained from employers in Distribution than in any other TRADEC scheme. Approximately half of the companies participating in the College F scheme responded negatively to questions concerning the adequacy of liaison and communication, complaining that they had no contact beyond an initial visit, on their entry to the scheme. This is, again, an example of the problems experienced in schemes involving large numbers of companies. The College F schemes were the largest set of schemes operating, in terms of number of schemes per year, number of participating companies and number of learners. The Course Tutor acted for all schemes and received very little support (other than some remission) in the extensive liaison duties. Other members of the staff team were not keen to extend their involvement with TRADEC because of its low-level status, and the part-timers engaged to support the expanding teaching programme were clearly not able to help with the liaison 'load'. Respondents from other schemes were closer to those from the Engineering Zone schemes in welcoming the liaison, although less enthusiastically. The modal frequency range of liaison was one to two visits per scheme.

390. Appraisals by respondents from the companies, of the relevance and capacity of the schemes for alignment to the needs of the company were, on the whole, less positive than those recorded in the engineering areas. Most companies were clearly looking to the schemes for attitude development and confidence, rather than transmission of knowledge and of specific skills. The schemes were seen very much as a minor adjunct to the development

experienced, and training undertaken, in the workplace. Where responses were classified the same way as previously, 12 company responses indicated satisfaction with alignment, 12 only partial satisfaction, and 5 were dissatisfied.

391. The following observations are typical of the range of responses:

Company D1: (Small laboratory equipment distributors). The General Manager considered that the scheme had successfully been aligned with employees' individual needs by increasing their general education in providing a base for progression to further qualification. It has served Company needs by 'enlightening the employee on information not taught within the normal working week'. The general observation was made that Colleges of Further Education tend not to communicate with employers on questions of scheme development unless 'chased' by the employer - an interesting inversion of the view frequently expressed in the colleges .

Company D2: (Small wholesale office supplies). The Managing Director considered that the scheme had 'very little' alignment with either employee or Company needs, had very little influence on their own training and 'was not sufficiently related to our training requirements'. This was attributed to a lack of contact with the college.

Company D3: (Large retailing multiple). The Training Officer considered that the scheme did not meet Company needs, but the Company did not require it to, since specific company needs were met fully through their own training. The TRADEC scheme was looked to to help employees to increase their self-confidence and their ability to communicate. The course was seen as supplementary to the 'real training and real work' occurring in the Company - it was the 'icing on the cake' and was considered of relatively little value with regard to job skills.

Company D4: (Small engineering merchants). The Managing Director considered that the scheme (College E) had been successfully aligned. It had helped employees to understand the Company's 'working policy' and had given them a fuller appreciation of their role within the Company, which had gained through the 'broadening attitude towards Company Business' noted in participants.

Company D5: (Food retail multiple). The Personnel Manager (involved in the College D scheme) considered that 'personal development' work had been well aligned with individual needs, that the syllabus had been 'entirely relevant' and students had gained in 'ability to communicate, in confidence and in stature'.

Company D6: (Food retail multiple). The Personnel Services Manager considered that the scheme had not been aligned at all successfully 'there is often a lack of sensitivity to individual needs'. TRADEC supplied a valuable input of work-related topics not easily obtainable in the workplace. The major weakness of the scheme, in the Personnel Manager's view was the 'academic approach' which alienated some students, and seemed less appropriate when compared with the non-academic approach of UVP Courses, with their emphasis on participation by students. (The Company had also participated in UVP schemes other than those offered on the TRADEC model).

392. The differences between expectations and experiences of TRADEC and its importance relative to in-company training between the Distribution

and Consumer schemes and Engineering Zone schemes is very marked, and is compatible with that revealed in learner appraisals of benefits.*

393. Several examples were found in which the scheme had apparently failed to meet the needs of workers outside the main retailing sales assistant occupations - a point of importance in view of the claim of the TRADEC schemes to be able to deal with widely varying groups within occupational families. For example, a young person working in the stores of a local hospital had participated in one scheme dominated by retailing occupations. The Assistant Area Supplies Officer commented that the scheme had been only 20 per cent relevant to the hospital environment, although he appreciated the difficulty of organising the course to meet the needs of 2 to 3 hospital workers, commenting

> 'In general, it is felt that it was a good course, but of more use to young people working in industry, supermarkets, etc. We have, of course suitable courses for most employees in the Health Service, but it was hoped that this short course based locally, would help to stimulate two young men in the Stores Department. ..... It should be of value to young people, if their firms have no training scheme or suitable courses at the local Technical College'.

394. Company D7: (Cooperative Society multiple). The Training Officers, who were enthusiastic TRADEC supporters, commented directly on the ability of the scheme to update itself as a major strength.

395. As far as achievement and progress in work-related skills was concerned, it was found that the question was frequently sidestepped by training staff in the Distribution field, on the grounds that in these schemes it was principally attitude development and employees general personal development needs that were the central aims. The certification and assessment systems were seen as 'not important' by most company personnel consulted, who often demonstrated little knowledge of the assessment base. Several respondents suggested that both the scheme programme and assessment systems were too formal, and rendered the scheme less effective in the 'attitude development' area than, for example, UVP schemes. Of those who did respond to questions concerning satisfaction with achievement and progress, many, although broadly positive, recorded levels of satisfaction lower than those apparent in the Engineering Zones, a phenomenon undoubtedly linked with the less clearly identifiable nature of skills and progress and the generally less good alignment and communication. Dissatisfaction with progress and achievement was recorded in only two cases.

396. The working partnership was considered to exist in reality by msot company personnel, with the exception of some of those engaged in the College F schemes, whose special problems have already been mentioned. The working partnership, although welcomed, was often considered capable of substantial improvement. The difference between this scheme and the Engineering schemes in this respect is not attributable to a generally lower level of communication between company and college, which is certainly not the case. It appears to arise, principally, through a greater openness and desire for close co-operative working in the distributive industries than was evident in the engineering companies.

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* See Chapter 5

397. In this context of general company perspectives, two cases exemplifying the involvement of

(a) a large department store chain
and
(b) a small business

are reported below.

Company D8: (Large department stores). The Departmental Manager (previously the Staff Trainer) was a member of the Regional Steering Committee for TRADEC and a strong TRADEC supporter. The 'climate' of the Company was one of a positive orientation towards Further Education, in which it actively promoted the participation of employees and courses. The Company had previously been involved with other FE corses, which had been considered less than successful, in some instances, in respect of their lack of 'relationship with the learners' work.' A decision had been taken, several years previously, to switch to TRADEC from BEC General because of its greater relevance, although the Company continued to use other courses from time to time, according to their suitability.

398. Employer commitment was generally high. A system of job rotation around departments, at three monthly intervals, was part of the standard training programme for all new entrants. Some efforts were made from the Company 'end' to co-ordinate learning in college with experience and activities in the store and talks on security, health and safety, etc., were arranged from time to time to 'tie in with the course'. Departmental staff as well as training staff were involved in the programme. It should be noted, however, that any co-ordination/link between the in-company and the college-based scheme was reported only by the Departmental Manager, learners regarding these as entirely unconnected and college staff considering that the system was not amenable to linkage, within available resources.*

399. Levels of progress and achievement were seen as satisfactory, and there were examples of those completing the courses subsequently receiving early promotion. Learner incentives were, therefore, provided (and were clearly reflected in learners' attitudes and motivations at Stage 3 level)** The assessment and certification was seen as having some value, although it was the change in actual work performance that was of primary importance to the Company.

400. The Company was, in general, clearly committed to training and, in particular, to the idea that companies should seek to co-operate with the local colleges.

401. The co-operative society, (Company D7) also a large user of the College F scheme, demonstrated a comparable degree of enthusiasm for the TRADEC approach in the retailing field.

402. Company D9: (Small family businees retailing schoolwear) had involved a young recruit to the staff of the shop to the newly-established College P scheme in 1981. 'Keen interest' was used as the criterion for involving a young person in the scheme. No shop-based training was linked to the scheme, other than that received continuously through experience. The owner of the business took direct responsibility for the young person's involvement in the scheme.

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* See para 226

** See Case Study Report 3, chapter 10

403. The owner had met college staff two or three times during the first scheme, and saw this contact as providing the opportunity 'to see if they are teaching for our requirements', and was satisfied with its outcomes. The owner also regularly reviewed progress with the learner, in order to ensure linkage between the scheme and young person's day-by-day experience. The owner felt 'generally satisfied' with the progress made by the learner, but felt that because of the specialism of their trade, benefit to the Company was limited. He further considered that one year of training was insufficient and that a two-year period would be required for full benefits to the learner and the company.

404. The business had encountered the problems typical of small companies. Release of the employee had created practical difficulties. The owner commented that had it not been for the financial help he would not have been able to involve the employee in training at all.

Commercial Trades Principles

405. The companies and organisations participating in the two Commercial Trades Principles schemes surveyed were drawn from the private and public sectors. They included large and small manufacturing companies, small insurance brokers, Local Authorities, Church bodies, and a football club.

406. The groups of workers selected for participation in the scheme were, predominantly, junior clerical staff. In one case the scheme was being used to support the transfer of a 'production operative' to a clerical post. In the case of the local authority, only WEEPs trainees were involved in the Commercial Trades Principles Scheme. BEC General being used for permanent staff recruited in the 16 - 19 age range. Social and Life Skills Courses had previously been used for this group. Transfer to the Commercial scheme had been made because of unavailability of the SLS course in the year of survey.

407. Seven of the companies had previously involved the selected groups of workers in other courses. In two cases these were unspecified typing and shorthand courses, and in two others a variety of courses was open to the choice of the trainees (usually where day release for all 16 - 18's was a feature of Company policy). Others used BEC General in parallel with TRADEC, with placement on TRADEC for those who it felt could not cope with BEC General/National. Another, however, considered that it was inappropriate to label TRADEC as 'a poor substitute for BEC for the less able', and was keen to promote TRADEC on an equal footing with BEC General.

408 Of the 12 companies from which responses were obtained, 7 reported that part of the work of the scheme was undertaken in the Company. In all cases this was centred on the project, and time allocated was 'variable' or 'as required' in most cases, with the exception of one small Insurance Broker, which gave 1 to 3 hours per week. (The Company Managing Director was, in this case, Industrial Assessor to the scheme and a keen TRADEC supporter). Personnel involved in the support of the project were in the majority of cases the supervisors to the trainees, with Training or Personnel Managers involved in discussion of the project work in some cases.

409. Periodic meetings with college staff were used to ensure linkage of company-based work in all cases. Visits to participants in the college setting were made by the personnel of four companies. Regular meetings between supervisors and trainees were reported by three. Liaison activites

ranged between one and four meetings per year with the Course Tutor - a degree of contact which was regarded very positively by Company personnl. Desired outcomes of liaison were 'control of training of the juniors', 'ensuring the relationship of work in college with work experience', 'ensuring relevance of all details of the course'; 'to gain understanding of course problems'; 'reaffirmation of purpose of course and its usefulness'; 'help in assessing the trainees potential and aptitude. Respondents were universally satisfied with the outcomes of liaison in these respects.

410. On questions of alignment to needs, the two Commercial Schemes clearly represented a balance in the perceived emphases and orientations expected and required by employers, between affective dimensions and job skills, again reflecting the learner perceptions of benefits.*

That the scheme

- 'provided interest and motivation'
- 'more understanding of company work'
- 'help in presenting themselves, and in basic office skills'.

were typical observations.

411. Of the 12 companies, 8 considered that the scheme had been fully aligned, 2 considered that alignment had taken place (to some degree), one of these commenting that it was 'ideally suited to personal development needs' but less relevant to company needs (eg. for accurate speed typing). None considered that the scheme had failed to achieve any alignment with their needs.

412. On questions of achievement and progress, responses reflected a general satisfaction, although several responses suggested that the scheme had failed to 'stretch' those participants who were 'more able'; and others were disappointed that the scheme did not reach a higher standard. One Works Director of a small (35 employees) optical prescription laboratory considered that the scheme was 'purposely watered down, and presented no real challenge for the bright', while another commented that it did not meet employees individual needs in terms of ability, and was, consequently, found boring by some. Another felt it was a weakness that the scheme was not linked to a more academic course 'for those on the brighter side'.

413. The working partnership was considered a reality. Most respondents confirmed that they had been consulted over the course, and had been able to make some input over course content and projects. Several companies, in their general appraisal, reported that they thought the TRADEC approach to be an excellent one, particularly in respect of its practical orientation. The Works Directors of a small spring manufacturing company considered that the scheme opened up 'a completely new potential' for training, but observed that the need for 'very detailed liaison and learning by college staff to maintain the relevance to the peculiarities of a particular company' was extremely demanding on college time and resources. Reports of the companies involved in the College G, CTP Case Study Scheme appear in full in the Case Study Report**

414 . The following two examples of companies involved in the College E Scheme provide illustration of company involvement in the only other operational scheme:

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* See para 234 - 241

** See Case Study Report 4, Chapter 10

Company C1: (Spring manufacturer. 130 employees, also involved in all relevant EITB Schemes, TEC, C & G Craft, Industrial Training). One employee was involved in the College E scheme in academic year 1980/81. The employee was in the process of transferring from a production operator job to a clerical post. The Company had been in close contact with the Course Tutor over the scheme and considered that it had operated fully as 'a working partnership' between employer, employee and college. An average of one day per week was given to scheme participants for in-company activity related to the scheme, usually in connection with project and assignment work. Trained instructors took supervisory roles in this work and integration was linked with college work and was maintained through periodic meetings between college and company supervisory staff, visits of company staff to scheme participants, in the college, and continuing discussions on progress between company training staff and the scheme participants. The Works Director considered that the employees had gained from their participation in the scheme, in the broadening of other interests and knowledge and in their 'ability to relate the particular job being done to the whole organisation'. The Works Director admitted to feeling sceptical about the course at the outset; but commented that he had moved far from that position since being involved

> '..... we are now satisfied that there is a very real place for this approach'.

415. Organisation C2: (A City Metropolitan Council) had involved two WEEPs trainees in the scheme in 1980/81. WEEPs trainees had previously been involved in SLS at College E. Since the SLS Course was not available in 1980/81 and the TRADEC Scheme had been suggested as an alternative by the Course Tutor. The Training Officer reported that it was the intention of the Council, in respect of WEEPs trainees, to involve them in provision able to give a 'good grounding in the commercial sector and in work generally'. The Council and College had been in contact through meetings between the Course Tutor and both the Training Officer in the local office responsible for supervision of the trainees. No part of the scheme had been undertaken on the employers' premises, apart from collection of information for project work, which had been based on the study of internal communications between central and local offices.

416. The Training Officer had insufficient contact to be able to comment on the process and outcomes of the scheme. The direct supervisor (Administrative Officer), however, felt that the main benefit of the scheme was the help given to the trainees in presenting themselves. Progress had been good, but there was slight dissatisfaction that one of the girls who had been very 'office skills orientated' found it boring at times. The strength of the course was that it had 'definitely been linked to what was done practically in the office'. During the 1981/82 year the WEEPs trainees had changed to a Basic Office Skills Course. The main reason for the change was the length of the course - ten weeks, against thirty three.

Food Trades Principles

417. The five responses from Company personnel were obtained from companies participating in the College A Food Trades Principles case study scheme. The nature of the companies and of their involvement are outlined in Chapter 10. Ranging from fish restaurants to large hotels, public authorities, they involved workers predominantly in low level jobs,(eg, fish fryer, tea attendant) in the scheme.

418. None of the respondents (the Managers in four cases, and the owner in the fifth) reported that any part of the scheme had been undertaken in the Company, to their knowledge, - a response inconsistent with that provided by the learners, three of whom reported that the greater part of the project work was undertaken in the Company. (The inconsistency can probably be attributed to lack of awareness on the part of the Managers of assignment work based on the workplace. All employers reported that they had been involved in choice of course content through the identification of priorities in respect of the scheme units. One reported that beyond that they had 'not had a great deal of say' in the scheme and therefore found it difficult to make judgements about it. The Catering Manager of South Yorkshire County Council had also been involved as an industrial assessor. All respondents reported that they had been happy with the degree of liaison. They reported that they had been satisfied, too, with the outcomes of the scheme which were, as in the Distribution schemes, expressed mainly in affective terms, e.g. more interested in their work, more aware, more confident, and able to deal with people, etc. The Catering Manager of the Public Authority, who had acted as industrial assessor to the scheme reported that he had been very impressed by the quality of the project work. Another (an hotel manager) commented that the scheme was the only one he had found which dealt fully with the human and interpersonal dimensions and skills so vital in the hotel industry. However, the scheme had not proved relevant to the needs of the receptionist involved during the current year, and he considered that if the scheme was to have a role in the Hotel & Catering field it would need to be more directly aligned with the industry's needs.*

419. The scheme was well received by all employers involved, despite the reservations of the college staff about the effectiveness and realism of the scheme.

420. A visit was also made to the headquarters of a supermarket chain, a Company which had, in the 1980/81 academic year, involved apprentice butchers in a scheme centred on the Company. developed with College E. The Training Staff had worked closely with the college in the Distribution and Consumer area, the Training Manager was generally of the view that TRADEC filled satisfactorily, an important gap in suitable provision in both fields. While there is little evidence concerning employer involvement and acceptability in Food Trades Principles, such limited evidence as does exist suggests both a definite role for the scheme, particularly in respect of small establishments, and general acceptability to employers where the spread of occupations accommodated is not so wide as to render alignment impossible.**

421. Overall then, it seems that the acceptability of TRADEC to employers is established. While the responses reported are largely from 'continuing companies' checks on companies whose participation has ceased revealed that in nearly all cases, withdrawal was due to lack of staff in the required categories, resulting from recession. However it is slightly disconcerting that this acceptability (or lack of it in a small number of cases) is frequently associated with perceptions of the scheme as other than it is indended to be (e.g. a substitute apprenticeship (FJTP) or a very minor adjunct to incompany training (DCTP). There is a general welcoming from employers of the degree of liaison and opportunity for involvement and effort put in by college staff in those schemes in which this aspect is well developed. However, the number of employers who have experienced the scheme as nothing more than a traditonal sort of course, indistinguished from others by anything other than its better liaison, should be noted.

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* See Case Study Report 5, Chapter D

** See para 160 (Chapter 2)

422. The benefits perceived and valued by the companies clearly depend on what they expect the scheme to do. However there was a marked emphasis on affective dimensions of development in all schemes except Fabrication and Joining where the accent was very much on specific job skills. Whether this is a manifestation of a general change in employer awareness or a product of the TRADEC scheme is not clear - but the impression is that it is the former. The extent of direct involvement in provision or support of company-based activity as part of the scheme reflected in the responses confirmed the view that direct input is lower than that which would normally be associated with a UVP scheme, confined predominantly to ad hoc support of parts of project work in a proportion of cases. It was interesting to note, however, that a significant proportion of those not involved in company-based activities, appeared to make some efforts to link the participants' day-to-day experience with the progress of learning in the scheme, and to engage in some reviewing discussions with their trainees. The responses confirmed that the assignment of staff with roles equivalent to that of the UVP Industrial Tutor did not take place. Any involvement of company personnel in supervision and support rested on automatic allocation of e.g. the direct supervision on an adhoc basis. The effects on learner motivation are discussed elsewhere.*

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* See paras 294- 328

423. The evaluation questions posed in respect of quality were those associated with, firstly, the moderation, monitoring and feedback mechanisms of the system.

> How is the implementation of schemes controlled? What forms of monitoring are used? What mechanisms exist for feedback to committees, writing groups and course teams? To what extent does review, evaluation and adaptation take place?

> Secondly, questions of the nature, selection, balance, preparation, of the teaching and learning activities, together with those of staff development, and thirdly, questions of how the schemes are reviewed and evaluated internally, were imposed.

MODERATION

424. The moderation system, outlined in Chapter 1, is the principal means by which the certificating body seeks to maintain the 'quality' of schemes, in terms of their adherence to the TRADEC model. The moderating function was seen as a developing one by YHAFHE, and one which required supplementing by closer monitoring of delivery.

425. The Moderators appointed to the system were, as intended, practitioners with experience in TRADEC implementation, and drawn from the operational colleges. The Moderators within their broad terms of reference, are required to consider and comment on the conduct of the scheme in the following areas:

> Does the course, in its organisation and structure meet scheme requirements in basic matters such as attendance, project work, records?

> What steps are taken to determine the needs of employers and of students? Is there evidence of organised working relationships between College Staff and Employers.

> Is the Life and Social Skills element included and generally integrated into the work as a whole on the basis of given guidelines?

> Is the scheme being interpreted and applied to meet these individual needs?

> Do staff involved organise the teaching/learning process as a team?

Is the learning process within the spirit of TRADEC? In particular, is the student's individual work situation used effectively as a teaching/learning medium?

Are the projects chosen valid and relevant?

Are the available learning resources adequate; are they renewed and updated?

Are the assessment procedures satisfactory and according to scheme requirements?

Are students able to monitor their own progress? Are the individual standards set and obtained satisfactory, and are actual standards reflected in the records of attainment?

426. The system had originally required Moderators to produce 'open reports' on the scheme. This was adapted, subsequently, to a system of grading of scheme performance under 10 points as shown in Table 7.1.

TABLE 7.1. MODERATORS' CRITERIA

1. Scheme requirements in basic matters such as attendance, project work, records, have been met.
2. Steps have been taken to determine the needs of employers and of students.
3. The course, taken as a whole, is responsive to these needs.
4. Students' individual work situations are used effectively in the teaching/learning process.
5. The Life and Social Skills element is included and generally conducted on the basis of the given guidelines.
6. The projects chosen are valid and relevant.
7. The staff involved work as a team.
8. The available learning resources are adequate.
9. The assessment procedures are satisfactory and conform with scheme requirements.
10. The standards achieved are reflected fairly in the record (from 110), and standards are in accord with scheme requirements.

Grades are allocated as follows:

A the requirement has been met exceptionally well,
B, if the requirement has been met at an acceptable level,
C, if the requirement has not been met fully but will be satisfactory with further experience, and with continuing help from the Moderator and
D, if the requirement has not been met: refer to Validation & Certification Sub-Committee.

The moderating function is an advisory and developmental one rather than that of inspection. Schemes appearing to fall short in one or more criteria should, it is intended, be supported in making the appropriate changes to meet the requirements.

427. An issue of concern is the strength of the moderation process and its ability, in practice, to maintain adequately the operation and quality of the scheme. The weakness of the system in practice has been of particular concern to some experienced practitioners who consider that schemes diverging widely from required practices, while frequently receiving criticism and recommendations for change from the Moderator, have little real pressure brought to bear in terms of improvement, and are always approved even when there is little evidence of change in the areas of concern.*

428. In the schemes operational in 1981/82, examination of the patterns of gradings assigned by Moderators to the conduct of schemes, revealed that most schemes received 'A' and 'B' gradings on all criteria, with the occasional 'C' grading being given. Comparison between the researchers' data on the conduct of schemes and Moderators gradings suggested that the criteria being applied for 'acceptable' levels of operation were both variable and in some cases admitting operational practices clearly at variance with the YHAFHE Principles. In the case study schemes, Moderators perspectives on the conduct of the courses reinforced the evidence of considerable variation in criteria applied by Moderators which was apparent from the matching of gradings with survey material. In the College A Mechanical Trades Principles Scheme, for example, the Moderators considered that employer involvement was satisfactory. A higher degree of employer involvement in the Food Trades Principles Case Study was, however, considered a weak feature of the scheme by that Moderator, who was quite clearly bringing different criteria to bear in respect of company-based projects.

429. Moderators were frequently assigned to a particular scheme for several years running. The intensity of moderation in second and succeeding years was apparently reduced in many cases, as Moderators became familiar with the scheme and established, in some cases, continuing and close contact with the Course Tutor.

430. Moderation does not extend to the quality of company-based elements; the absence of requirements in respect of existence of, or performance within, any company-based activities, renders moderation of this aspect unnecessary, it is argued. However, even the course completion requirement of 75% attendance including time planned for company-based work requires moderation - there is no clear means by which this takes place in the present system. Many questions concerning quality-control of any company-based work undertaken, in the absence of a working Industrial Tutor system or its equivalent, and in the context of the statement that parts of the course should be undertaken in the Company wherever possible, are raised. The lack of adequate means of oontrol, of supervision of process and of monitoring is given by several departments as the principal reason for adoption of a policy of college-based project work.** One college adopted such a policy as a means of ensuring that 'the high standards required by the college can be maintained'.

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* There is one instance, cited by YHAFHE, of a scheme diverging so far from the principles of the system that approval was witheld pending evidence of substantial change in approaches to employer involvement.

** See para 219

431. The Industrial Tutor and monitoring systems adopted for in-company work in many of the ITB/UVP schemes, including the use of logs for weekly discussion and signature, and for review, represent attempts to deal with these kinds of problems. They prove moderately effective where implemented as intended. The practical difficulties, however, are such that they are frequently not implemented as intended, and the indications are that means which are more manageable and more directly supportive of an explicit learning process, need to be developed in both types of scheme.

432. The difficulties of maintaining, through the moderation system alone, adherence to the TRADEC methodology, particularly in colleges less experienced in the non-traditional areas of provision, had led YHAFHE to seek resources for closer support and monitoring in respect of the establishment and development of schemes. At the time of writing the new Association, through the recently acquired 'franchise' for college-based UVP in Yorkshire and Humberside, was intending to obtain the support of a development officer with a monitoring and advisory role, working in parallel with the Yorkshire and Humberside Field Organiser.

TEACHING AND LEARNING

433. The YHAFHE guidelines emphasise that the philosophy and methodology of the TRADEC approach requires compatible 'learner-centred' teaching and learning approaches.

> 'The arrangements adopted should be designed to keep the learner involved in practical activity, whether classroom or workshop-based, and should incline towards self-reliance and personal responsibility for learning rather than formalised instruction.'
>
> (YHAFHE 1982:)

The intention that the length of the scheme should be geared to learner requirements and may vary inbetween groups with different needs is emphasised. The central function of project work is expressed as follows:-

> 'Whatever the overall time available, the bulk of it should be spent in project work, which is intended to be the principal activity and the vehicle for learning and cooperation, it is also intended that this should include a distinct personal commitment from the learner' (YHAFHE 1982: 24-25)

Balance of teaching and learning approaches in implemented schemes

434. Course Tutors of the surveyed schemes, with the exception of one MTP scheme, described and illustrated teaching and learning approaches within their schemes which broadly met YHAFHE recommended practice. Course Tutors in schemes drawn from the Mechanical, Fabrication and Commercial groups placed particular emphasis on the use of handbooks and exercise sheets, which were used in some cases as a main instrument of student involvement in individualised and group enquiry. There were several instances of the use of the structured exercises of this kind as the primary means of achieving individual company-based investigations. Similarly, all Course Tutors stressed the importance of involving the

students in 'making and doing' within theoretical as well as workshop or other practical periods. The standard 'lecture' or chalk and talk approach was, it was claimed, rarely adopted and this was borne out by the case study investigations and other observational work undertaken.

435. All course tutors considered that the teaching and learning approaches differed from those which characterised parallel 'conventional' courses. However most acknowledged that the scope for the use of learner centred, learning-by-doing and enquiry approaches existed equally in the conventional courses. As one Course Tutor put it, it tends to be the teachers who are more experienced and more flexible in their teaching approaches that are placed on TRADEC courses. Here they put into practice the approaches which they would implement in e.g. Craft Studies or BEC. It was noted thought that the absence of pressure of standardised examinations did allow teaching and learning to be both more relaxed and more adventurous than in courses where the 'syllabus had to be covered'. The extent to which the teaching was, in reality, more relaxed and adventurous depended on the use made by the teacher of this less - constraining environment. In cases where the department had attempted to meet the required unit coverage 'to the letter'. however, a similar rigidity was produced, (and commented on), in the information and supporting studies components. The scope for coverage of compulsory content to different levels according to group needs assumes some degree of uniformity in those needs. In several cases Course Tutors considered that the groups needs in respect of information coverage were so diverse that a substantial coverage of each topic was required (as well as some unspecified topics) in order that each individual received the required base.

436. It was noted that where the provision was strongly linked with UVP (e.g. DCTP Schemes, College J MTP) there was evidence of greater explicit use of learner-centred approaches than was found in those schemes which pre-dated the UVP development. Where approaches were compared with those adopted in other schemes falling under the Vocational Preparation umbrella, TRADEC was characterised by its greater use of formalised methods of instruction, attributed most often to its certification requirements.

437. This was particularly noticeable in differences in the way in which TRADEC was viewed, according to its departmental and college context. In colleges such as College P, which were heavily engaged in work for the young unemployed, TRADEC was certainly not viewed as radical or markedly non-conventional. In colleges such as College J, still heavily involved in conventional craft work in engineering, TRADEC was frequently seen as a radical departure, and was often a controversial development for this reason.*

438. The case study investigations enabled the balance of teaching and learning methods to be observed in the selected schemes. The construction of the daily timetables has been outlined briefly in Chapter 4.** and detailed in the case studies. In terms of teaching and learning methods adopted the 'balance' achieved in the typical day is described in the case study schemes.+

439. In the case study schemes in the Engineering areas, little difference was discernable between the 'classroom' approaches of TRADEC and those characterising the implementation of the conventional craft course. The

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* See para 202 - 204

** See para 203 - 213

+ See Chapter 10

time balance, however, was substantially different; far greater time was allocated to workshop practice in the TRADEC scheme. There was also evidence of considerable use being made of examples drawn from the working contexts of the participants, (as is the case in any satisfactorily taught City and Guilds Craft Studies Scheme) Although some Engineering Zone schemes clearly did adopt fundamentally different classroom approaches from those used in City and Guilds, it was considered that the two selected case study schemes were typical in the balance they represented.

440. In the non-engineering areas, greater use was made of the scope for non-traditional and learner-centred approaches. In the Distribution and Consumer scheme selected for case study, the approaches described were combined to produce a set of very varied learning experiences and activities, and were characterised by an absence of formalised instruction. Active learner participation was very much in evidence, and in the Stage 3 scheme, energy and motivation appeared high. This was counterbalanced, to some degree, by the lack of a sense of cohesion and direction in the scheme, very clearly reflected in the learners' appraisals of their experiences.

441. In the Commercial Trades Principles and Food Trades Principles case studies, the scope for variation in teaching and learning approaches had been used fully, with the high practical emphasis illustrated. In the latter case, the importance of variations in group characteristics, interacting with effectiveness and appropriateness of learner - centred teaching and learning approaches was illustrated. Approaches adopted and successfully implemented in the first scheme had been virtually impossible to implement in the second, a factor which was attributed by the Course Tutor and team to the very limited experience of the learners on which the learning process could draw, and to the inappropriateness of the curriculum structure for the lower end of the ability range in the target group. The sense of frustration of the teachers, interestingly, was not shared by the learners, who had found their experience a satisfactory one.

442. There was more variation in the Commercial and Distribution and Consumer Courses than would feature in a typical BEC course. However, the BEC model clearly accommodates, and indeed encompasses, all teaching and learning approaches adopted in TRADEC. The principal differences are, it seems, those of (a) the assessment requirements and (b) the allocation of teachers, those who, as a matter of choice and style, take less conventional approaches being directed into the non-conventional schemes - thereby feeding a 'division' between the supposedly 'conventional' and 'non-conventional' which is rejected, at a conceptual level, by many.

443. It is important to note the stronger UVP influence on teaching and learning in the non-engineering areas. The timing of the introduction of non-engineering schemes and their joint operation with UVP with DITB in their early stages had left its mark on these schemes. In the Engineering Zone schemes developed before the introduction of UVP, UVP characteristics, if they had any influence at all, had been superimposed. In one of the MTP schemes launched after UVP introduction, the UVP emphasis was very marked in the teaching and learning approaches.

TEACHER PERCEPTIONS OF TEACHING AND LEARNING, AND OF DISTINCTIVE CURRICULUM FEATURES.

444. The Course Tutors, principally in a coordinating role and with

varying degrees of involvement in teaching activity, outlined the teaching and learning strategies in the terms already described and were, as would be expected, of the view that the balance achieved was both effective and appropriate. The replies of other members of the Course Teams to questions concerning the general teaching - learning strategy and their own contributions to it, shed some further light on the balance and appropriateness of teaching and learning methods, and the adequacy of the curriculum structure to accommodate their own field to their satisfaction. Perceptions were highly variable both within and between schemes. Some variations within schemes clearly reflected the teachers' own educational 'stance', (particularly in respect of issues of educational worthwhileness and industrial needs). Other responses clearly reflected features specific to their own area.

445. In response to the question concerning the extent to which the TRADEC curriculum structure, as implemented in their scheme allowed the teacher to cover his/her subject areas in ways which they considered adequate to meet learners' needs, the large majority of teachers in schemes of all types, considered the general structure satisfactory. It should be noted, however, that in many instances, particularly in the non-engineering areas, the 'array' had already been bypassed in the planning stages by Course Tutors/previous course teams as it had not been found adequate to accommodate the various subjects and approaches staff wished to introduce within the different course components in which they were involved.

446. In the small number of cases in which teachers did not consider that their subject area was adequately accommodated, these were spread evenly by type of scheme. More teachers of Social and Life Skills components/dimensions complained of inadequate 'accommodation' than did technical teachers, and this occurred both in schemes in which integrated SLS approaches were used, and in schemes including separate elements; in schemes in which technical staff were responsible for SLS and in which General Studies staff had this responsibility. One lecturer from the Engineering Department undertaking project supervision and SLS teaching on an MTP scheme observed that:-

> 'the large spread of TRADEC areas to be covered with various groups means skimping of Social and Life Skills'.

Another teacher based in the General Studies Department and providing SLS as a separate component within a Fabrication and Joining scheme, commented on the need for more time, and the need for double staffing (currently not available for resource reasons) to 'do the job properly', while a teacher in the Business Studies Department, dealing with marketing and stock handling in an 'integrated' DCTP scheme offered the following observation:-

> 'I feel that the personal elements should be more clearly written into the syllabus - the matrix leads to subject timetabling instead of a flexible student - centred programme'

One technical teacher in an MTP scheme commented on the difficulty of implementing projects effectively without, as he saw it, an adequate foundation of 'basic skills'.

> 'Project work requires basic skills and knowledge which many students have not got, and it is very difficult to teach adequately these skills in project work'.

This view, however, was not widespread. The majority of teachers who commented on project work considered it an effective vehicle for both technical and Social and Life Skills development.

447. Responses concerning the teaching/learning methods found to be most effective with the groups in question were consistent throughout the sample .

- use of project - based, practical approaches
- groupwork methods
- handouts for completion
- discovery methods
- individual, personal contact

recurred throughout the responses, in the engineering areas.

In the non-engineering areas,

- group work methods
- case study
- video exercises
- simulation
- role play

were mentioned frequently.

448. Over all types of scheme, 40 per cent of teachers responding, stated that the methods they adopted with TRADEC groups were not significantly different from those they adopted with other groups in the conventional courses offered by the same Departments, reinforcing the earlier point that teaching method is associated with the teacher rather than the course model.* It should be noted again that the teachers allocated to TRADEC were frequently those most willing to try out non-traditional approaches and to operate experimentally in their work. Cases of transfer of traditional methods into TRADEC occurred predominantly in the engineering areas, where subject centred methods adapted from the conventional only by slightly greater use of individual exercises and greater time spent on practical work, were clearly in use in some schemes.

449. In reply to the question concerning the main problems in teaching and learning which teachers (excluding Course Tutors) had encountered in their work, the frequency spread of responses is given in the Table 7.2. In most cases, steps had been taken to overcome problems encountered, with varying degrees of success. In the case of problems caused by range of ability and job requirements of the learners, attempts to overcome these concentrated primarily on more individual work and closer liaison, implemented with 'moderate' or 'low' degrees of success, according to the breadth of variation within the group, and, in the latter case, the number of employers involved in the scheme. In instances of problems in achieving learner participation, experimentation with; alternative methods had been

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* See para 435

TABLE 7.2 CURRICULUM PROBLEMS ENCOUNTERED BY COURSE TEACHERS (other than the Tutor)

	TOTAL	MTP	FJTP	DCTP	CTP	FOOD TP
Difficulties in:	N=39	N-12	(N=12)	(N=8)	(N-3)	(N=4)
1. Coping adequately with wide spread of student ability	7	4	2	-	-	1
2. Coping adequately with wide spread of student occupations and employer requirements.	5	4	-	-	-	1
3. Planning and development of project work.	8	1	3	3	-	1
4. Student perception of relevance						
- generally	1		1			
- specific components	1		1			
5. Employers expectations of student abilities	1	1				
6. Matching course components with projects/ dealing with overlap in course components	4	1	1	1		1
7. Achieving student participation	6	3		1	1	1
8. General course planning preparation of material	3	1		2		
9. Definition of SLS elements	2			1	1	
10. Meeting needs of WEEPs and other YOP and unemployed participants	1		1			
11. Level of students in basic skills	2	1	1			

used in many cases, often with a high degree of success.

450. The problems of project planning, it appeared, frequently stemmed from a lack of commitment and interest from employers. Again, closer liaison over project matters had been introduced in many schemes to overcome these problems; but here such success as was achieved was considered very limited in most cases. The 'time scales' of project work seemed sometimes to cause problems, with frequent 'late starts' to the principal project, and therefore curtailing of the project activity with accompanying limitations on its effectiveness. This difficulty was apparent within the schemes selected for case study.

451. Problems in general course planning and preparation of material were met initially by teachers, as is the case with the introduction of any new course. These problems had been resolved successfully in most cases. Development of course materials, leading in some cases to 'banks' of TRADEC and related resource material had greatly alleviated problems encountered in the development phase.

452. The lack of clear specifications or guidelines or supporting materials for SLS elements, mentioned by teachers in two non-engineering schemes in which integrated approaches were used, was a continuing problem. Overlap and matching of course components attracted some comment in each type of scheme, with the exception of Commercial Trades Principles. The matching of course components to project work was clearly a problem associated with the more general problem of project planning described above. The tendency towards rigidity in the translation of course 'array' components into practice, in cases where this direct translation took place, attracted further comment, compatible with that presented by several Course Tutors:

> 'I feel that we are too syllabus - centred. We should look for areas of overlap and build on these in the way BEC has cross-modular assignments. We use too many staff to get close to the students. TRADEC is not walking firmly on two legs - the job and the personal
>
> (Distribution and Consumer teacher)

453. Observations were invited on the various claims of the TRADEC system in respect of both the extent and of the quality of the implementation of special curriculum features. The extent of implementation of special features such as the 'triangular' working partnership are dealt with in Chapter 4 .* On questions of (a) how effectively the TRADEC model 'fits itself to each individual and each working situation' and (b) how successfully the 'operational management' accommodates groups of people with different job backgrounds, both the Course Tutor and the Course Team responses were overwhelmingly positive.

454. Course Tutors in all schemes but one registerd views that, although alignment was not, and never could be, 100 per cent successful, the TRADEC model as implemented in their colleges came satisfactorily close to it. Several respondents considered that the scheme came closer to alignment than any other course model they had experienced; the respondents concerned were not solely comprised of former teachers of conventional courses - several had participated in UVP and/or YOP schemes. The

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* See paras 179 - 190

Course Tutor of one MTP scheme had experienced considerable difficulty in gearing the scheme to participants whose work was not in 'mainstream mechanical' eg. wire-rope operators and workers in plastics who required some understanding of mechanical processes but for whom the principal needs were teamwork and communications. The Course Tutor had found the 'array' to be too inflexible to accommodate these, with its 'coverage' requirement for units.

455. Among other Course team members, compatible responses were recorded, with the majority of teachers clearly considering the scheme to be highly successful, in practice, in achieving alignment and accommodating widely varying groups, although the limits for which this was feasible in terms of size of the group and the extent of occupational variations were expressed by some. Only 4 Course Team members considered the scheme completely unsuccessful in its ability to align itself with the needs and requirements of individuals and companies, and its capacity to accommodate groups widely varying in ability and job. Observations reflecting the range of comment here include:

Distribution and Consumer Trades Principles:
teacher of retailing 1980-81 / Course Tutor 1981-82

> 'Yes, the system is broadly - based, which allows each student to find relevance and build upon that factor for his/her own job. It helps them to appreciate others and their jobs'

Distribution and Consumer Trades Principles:
teacher of retailing

> 'To a large extent Projects allow for specialist study in depth; high level of coverage in subject matter, with small group sizes allowing for more individual attention'

Fabrication and Joining Trades Principles:
teacher of technical drawing

> 'Not strictly true, but generally flexible enough to cope with different student requirements'

Mechanical Trades Principles:
teacher of craft principles/workshop supervisor

> '......... In the main we can fit the student up with his 'area' of specialisation if the groups are held to a number of about 12 to 14'

456. Most responses mentioned the major project, and some, minor projects and assignments, as the most effective vehicles for achieving alignment with widely varying needs. Others, particularly in the Distribution area, referred to establishing a 'core' which was, as far as possible, geared to needs; the limitations of this were, however, noted.

Distribution and Consumer Trades Principles:
DITB Training Advisor, teaching selling/Human Relations 1980/81
and subsequently Course Tutor 1981/82

> 'Obviously, in any group, you aim to give the maximum to most people. But this must be at the cost of those not forming the core of the group'

Another respondent from a Distribution and Consumer Scheme registered concern about this feature:

Distribution and Consumer Trades Principles:
teacher of marketing, stock handling and storage

> 'I feel this is a very unsatisfactory aspect of the scheme as at present implemented. The assignments are sometimes individualised, but the bulk of the course is experienced as a group'

The danger of ossification of those components of the scheme intended to provide the 'matching' medium is manifested here.

457. Other responses both from Course Tutors and other team members, however, indicated that there was, in practice, sufficient 'commonality' in job backgrounds for a relevant 'spine' to the course to be established, suggesting that the groupings were working in practice, in most cases. The importance, too, of students learning from each others' experience was mentioned by several respondents. It was felt that the TRADEC model provided scope for use of teaching methods which facilitated exchange and learning between peers. The factors most commonly identified as interfering with the process of alignment and accommodation were:-

(a) lack of time

(b) size of class/staffing arrangements

(c) lack of employer interest

Lack of adequate 'staff development' support and provision for staff taking on non-traditional courses was mentioned by one respondent, a point taken up later in this Chapter.*

458. The fundamental claim that 'TRADEC is a system of personal development which uses the working situation as a vehicle and motivator', was also put forward as a subject for comment by both Course Tutors and all members of the Course Team. The responses were widely varied, and primarily reflected the position of the 'educational philosophy' of the individuals responding in relation to that of the scheme as implemented. Within the same scheme, widely different perspectives on the operation and effectiveness of that scheme as a system of personal development, were expressed.

459. The question served to generate several responses of interest. A selection of observations drawn from the minority considering that the system did not allow for adequate identification or meeting of personal development needs conveys the spread of views represented in the replies:

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* See paras 467 - 473

Distribution and Consumer Trades Principles:
teacher of Marketing, Stock Handling and Storage.

> 'We should write into the syllabuses certain personal life aspects of the topics e.g. money, rules. We need more time and changed staff attitudes to get closer to the students'

Fabrication and Joining Trades Principles:
teacher of Social and Life Skills

> 'More time for teaching and developing teaching materials is required'

Mechanical Trades Principles:
teacher of Operational Outlines and Project Work

> 'Staff have not sufficient time to follow up this line of development'

Mechanical Trades Principles:
Course Tutor

Considered that the needs of the learner are much less easily accommodated by TRADEC than by UVP. TRADEC was not in reality he suggested, a system of personal development at all. The array structure and associated requirements was at variance with the stated TRADEC philosophy - a fundamental review of aims and methods were required.

Distribution and Consumer Trades Principles:
Course Tutor

Considered that there was a strong emphasis on personal development in the scheme as offered by the college, but attributed this principally to the UVP link, with the involvement of DITB, YMCA Youth Tutor and residential element.

Fabrication and Joining Trades Principles:
Course Tutor

Considered that personal development needs had not been met since (a) young people experiencing redundancy during the scheme had become disheartened and it had not proved possible to deal effectively with this and (b) administrative difficulties had not made it possible to include a residential element.

GENERAL OBSERVATIONS ON THE QUALITY OF OPERATIONAL SCHEMES

460. Overall appraisals by teachers of the features presenting particular strengths in respect of the quality of operational schemes, focused on two areas:

(i) adaptability, in practice, to learner and employer needs

(ii) benefits of closer teacher - learner contact relationships in the learning process

Comments on areas of weakness suggested that the system frequently fell short of the quality of operation intended, but that where this occurred, it was often 'self-inflicted', by negative attitudes of staff, learners or employers. Others considered that the scheme was 'as good as its staff'. These perceptions were shared, to some degree, by other members of the Course Team.. However, Course Teams frequently carried members less committed to the TRADEC principles and methodology than was the typical Course Tutor, and their assessments of the general quality of the scheme, based on their experience, reflected several recurring reservations about the basis and implementation of the system as a whole.

SUPERVISION AND SUPPORT OF IN-COMPANY LEARNING

461. It has been noted that, in TRADEC schemes, neither the Course Tutor nor Moderator is responsible for developing or maintaining a monitoring function for the predominantly 'ad hoc' company based elements of TRADEC schemes. The 'Industrial Tutor' system established under UVP is not a feature of TRADEC, the establishment of a point of contact in respect of liaison over course matters being the only requirement of the system. Securing of supervisory support and input from company personnel is, however, seen as desirable and strongly encouraged

(YHAFHE 1982:)

Learner accounts of in-company support are given in Chapter 5.*
The breakdown by type of scheme of both

(a) points of in-company contact/support
and (b) numbers of learners receiving support and supervision, and their assessments of its helpfulness to them

are given in Tables 7.3.

462. In exceptional schemes, continuing supervision and assessment of all or most project activity was undertaken by participating companies. These were, in most cases, single or two company schemes. For example, in the College E Distribution and Consumer scheme in which a large supermarket chain provided the bulk of participants, a good deal of project work was undertaken in the Company and supervision was provided largely by Company personnel. However, case study interviews undertaken both with learners and with company personnel revealed that the learners experienced little more than generalised and occasional interest and enquiries from e.g. the Training Officer, when no substantial part of their scheme was undertaken in the company. Where assignments or major/minor projects were undertaken partially or wholly in the company, the Foreman, Chargehand, or similar undertook an active supervisory role in approximately one-third of cases, usually on an ad-hoc basis. Training logs or diaries requiring supervisors' signature were rarely used (although these had initially been adopted to meet UVP requirements in some Distribution and Consumer Schemes) and the supervisors' role in assessment varied considerably, but was usually small. In the cases in which in-company assignments were undertaken on an occasional ad hoc basis, support, in the form of advice and, occasionally, limited supervision was given only on requests from the learner for assistance, in most cases.

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* See paras 250 - 254

Table 7.3 POINTS OF IN-COMPANY SUPPORT IDENTIFIED BY LEARNERS, BY SCHEME (FREQUENCIES)

		MTP N=68	F N=50	D N=39	C N=16	FOOD N=4
1.	Personnel/Training Manager	36	16	17	2	4
2.	Other management	4	8	9	1	3
3.	Supervisor or line manager	13	10	12	-	5
4.	Other office workers	-	-	-	-	1
5.	Foreman or equivalent	1	10	-	-	-
6.	Instructor	1	-	-	-	1
7.	Other workers	13	6	1	-	1
8.	All staff or varying	-	-	-	1	1

Table 7.4 TYPES OF HELP AND SUPPORT PROVIDED IN-COMPANY, BY SCHEME (PERCENTAGES)

	MTP				FJTP				DCTP				CTP				(FOOd TP)			
	N	very helpful	fairly helpful	of little help	N	very helpful	fairly helpful	of little help	N	very helpful	fairly helpful	of little help	N	very helpful	fairly helpful	of little help	N	very helpful	fairly helpful	of little help
Supervision of project work	94	17	38	45	110	26	39	34	62	21	35	44	23	52	35	13	3	(1)	(2)	(-)
Arranging visits other than special activities	70	10	19	71	89	4	30	64	52	12	48	40	14	(21)	(31)	(57)	2	-	-	2
Experience of different types of work	79	20	33	53	99	28	41	29	55	40	31	29	13	(46)	(23)	(31)	3	(1)	(1)	(1)
Advice and guidance on course work	88	19	38	42	108	34	35	42	64	14	50	36	21	(33)	(38)	(29)	4	(1)	(3)	(-)
Providing materials	110	48	35	16	133	60	23	14	66	38	32	30	24	(71)	(21)	(8)	(13)	(2)		

463. Of responding company personnel themselves, approximately one-half claimed to provide supervision, of a generalised kind. There was some bias in responses towards the employer taking an active part - those companies which understood the nature of the scheme were more likely to respond than those regarding it as simply another day release course to which students were 'sent', and therefore over-represented in the returns. Also, it may be expected that the learners account of supervision actually experienced is more likely to be accurate than that claimed by the employer* - a supposition borne out by the more detailed and direct case study investigations. More detailed analyses and examples of company involvement in this are found in Chapter 6.

SCHEME EVALUATION

464. The extent to which schemes were reviewed and evaluated internally by the implementing teams, was investigated. Few Course Tutors or their teams undertook systematic evaluation beyond the general exchange of problems and discussion of possible solutions, as a continuing process, within the Course Team. This process was described by most Course Tutors as evaluating the scheme 'informally'. In some instances the continuing review process was clearly planned, and effective in maintaining and developing the scheme. In others it appeared that the team meetings occurred so rarely that the 'informal' process could, in reality, be considered barely to exist. Some examples were found of schemes in which no review was undertaken on the grounds that the scheme was now established and simply worked to the 'set' formula, Several schemes had devised systems for securing employer feedback, ranging from questionnaires to meetings. In one case an employers' feedback session had been held at the residential centre.

465. Student feedback too was obtained by a similar range of means. Several schemes held student 'debriefing' sessions for the scheme as a whole and for components such as the residential period. One company, in the College E Distribution and Consumer scheme already described, held student debriefing sessions on the Company's premises with the involvement of Company and College staff, providing and excellent example of the partnership principle extended through to evaluation and scheme development. The UVP schemes in most cases prepared a brief evaluation report for their Steering Committees, usually based on the subjective appraisals of the Course Tutor and Team.

466. Most college staff involved in the schemes saw the moderating system as their principal source of evaluative feedback. Few schemes conveyed their own evaluations to YHAFHE, perceiving this to be the function of the Moderator, and claiming that feedback was rarely channnelled to the appropriate Trades Principles Committees. The scheme, it was felt by one Course Tutor, had so ossified that recommendations for adaptation on the basis of experience from the ground were neither sought nor valued. While this was only one view expressed, there was no clear system affording opportunities for feedback and adaptation after the pilot stages of a given scheme, beyond that afforded by moderation. The function of the moderating system in helping schemes to develop through evaluation was stressed and, on the whole, valued. But for many the contact was too brief to be as effective as it could be.

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* Differences in percentages are important, what en employer described as continuing supervision in respect of the scheme, appears all too often to the learners, to be little more than an occasional passing enquiry about progress.

SELECTION OF COURSE TEAM, AND STAFF DEVELOPMENT

467. Provision for 'Staff Development' was seen as fundamental to the TRADEC system from its early stages, illustrated by the existence of a Staff Development Sub Committee. The Committee, largely moribund until recent times, is looking anew at needs generated by the TRADEC development for new staff skills, approaches and attitudes, linked with issues of course development. The allocation of staff to TRADEC schemes is a process reflecting application of the combined criteria of suitability for 'non-traditional' work in skills/attitudes, of availability within the timetable and of staffing levels relative to Burnham gradings. In some instances, notably those in which support from the college hierarchy was strong suitability in terms of skills/attitudes predominates. In colleges and departments less committed, it was often found that the timetable and staff grading criteria predominate over suitability.

468. Course Tutors' accounts of staff development activities available and engaged in, revealed that:-

(a) Many tutors perceived a need for college-based initiatives for staff in skills and approaches appropriate to TRADEC

and

(b) these were considered most appropriately to be set in the wider context of development strategies for 'New FE' or non-traditional work.

469. Most Course Tutors considered that TRADEC required skills and attitudes substantially different from those required for 'conventional' schemes. Items recurring frequently among the development needs articulated both by Course Tutors and by members of the Course Teams included 'openness' to new ideas and approaches; willingness to experiment; enthusiasm; familiarity with local industry; ability in 'selling' TRADEC to employers; and an ability to 'relate to students at a personal as well as at an administrative level'. One Course Tutor considered that teachers engaging in TRADEC should have 'robust' personalities able to withstand flack from employers! Another observed, in respect of MTP, that all that was required from any craft teacher was a real interest in his trade and ability to communicate its skills and features at any level.

470. The range and emphasis of a college's provision influenced, to a large extent, the staff development needs identified, e.g. In colleges already dealing predominantly with non-traditional courses such as YOP, ABC etc. the demands of the TRADEC approach in respect of new skills were seen to be less than those which characterised other schemes, in which experience had been built up over a period. In departments engaging entirely in conventional courses prior to the introduction of TRADEC, the processes of adjustment, curriculum planning and resourcing create more demands, and throw into relief the development needs of staff needing to reorientate.

471. Most (17) Course Tutors had attended external staff development activities of some kind; the majority of these had been conferences/seminars concerned with UVP or wider non-traditional developments. Those Course Tutors involved since the design and pilot stages of their scheme had, in most cases 'developed with the scheme' and had frequently acted as advisers to others. Course Tutors generally agreed that staff development needs could be better met. College - based and wider strategies were required. The function of the Course Team in

supporting the development of staff was seen as important in most cases. Several schemes had adopted a system of introducing new members into the team year by year, in order that a pool of expertise and experience was built up in the department, on which the scheme could draw in future years. In some instances, however, the Course Team did not provide an appropriate 'climate' for development, with a lack of continuity with frequent changes of part-time staff.

472. Systems promoting exchange between practitioners in operational colleges were seen as particularly important. The moderating system was seen to have, in addition to the evaluation function described, an important staff development function, arising from its use of experienced practitioners. The system was, however, considered insufficiently developed to have a substantial impact on staff development currently. The superficiality and brevity of much contact with Moderators was widely commented upon, both by Course Tutors and by Moderators themselves. The need for a more intensive system was stressed, including more frequent changes of Moderator for individual schemes, where familiarity can militate against good and effective moderation in some instances. The supportive nature of moderation was considered a strength, but over-familiarity clearly led to over-identification with the problems of the department concerned, and therefore insufficient thrust towards development.

473. Course Team views of staff development needs and systems, where given were compatible with those of the Course Tutor. In many cases, no responses were given to questions concerning the adequacy of staff development, attributable, apparently, to uncertainty about the activities incorporated under the Staff Development concept. The participation of Course Team members in specific staff development activities is shown in Table 7.4.

TABLE 7.4. PARTICIPATION OF COURSE TEAM MEMBERS (OTHER THAN COURSE TUTORS) IN RELEVANT STAFF DEVELOPMENT ACTIVITIES (N = 43)

Courses	12
Conferences/Seminars	10
Curriculum Workshops	7
Course Team Activities	9
Other	5

Participation of Course Tutors and other Course Team members in related TRADEC activities

474. Table 7.5 shows that, of 19 Course Tutors; approximately one half had been actively involved in supporting/promoting the TRADEC development through Writing Groups and/or moderating. Few members of the Course Teams

were similarly involved. This was to be expected, since it was in most cases level of interest and involvement which led to an individuals allocation to the schemes as 'Course Tutor'.

TABLE 7.5. PARTICIPATION IN RELATED TRADEC ACTIVITIES

	COURSE TUTORS N = 19	COURSE TEAM MEMBERS N = 43
Membership of TRADEC committee	3	3
Membership of TRADEC Writing Group	8	6
Contributor to Staff Development programmes.	6	5
Moderation	10	3
Other	1	1

The age, grading teacher training and industrial experience profiles of TRADEC Course Tutors, and Course Team members from whom responses were obtained, are given in TRADEC III.

SUMMARY OF FACTORS ASSOCIATED WITH EFFECTIVE IMPLEMENTATION

475. In general, then, the divergence between actual and intended system performance illustrated in preceding Chapters would appear to be held in check to some degree, by the moderation system - the main instrument of 'quality control'. The moderation system is another attractive one, but is capable of development to a point of far greater effectiveness, given additional resources. The traditional staff attitudes and skills so often held to be the primary cause of divergence do not appear to be strongly indicated here, at Course Tutor level. The results have shown a considerable degree of awareness of the principles and potential of the system. Practical operating constraints of lack of time, resources, college policy in respect of staffing, timetabling and the academic year, and constraints inherent in college-managed, multi company schemes are more often indicated to be the causes of divergence as well as some features inherent in the distinctive features of the TRADEC system itself. It is few staff who are so committed that they are prepared or able to do battle with the systems to produce, in practice, the intended operation and outcomes. Acceptance of divergence as

the product of constraints on the system is widespread, but this does not mean that the staff are not aware of intended operation and do not assent to its principles. At Court Tutor level they do so overwhelmingly, However, the level of awareness and assent does decrease with the degree of involvement, and among other course team members, the influence of rigid approaches and pre conceptions have caused problems in several schemes. In general, there were ample examples of good teaching/learning practice in the schemes. Staff development needs in respect of the whole held of Vocational Preparation were widely recognised by Course Tutors, and such activities as existed were well subscribed to by TRADEC Course Tutors, and other teachers. However, the staff development functions of the Course team had not been explored to any great degree in many of the schemes, and similarly, evaluation was limited as non-existent in many instances. Moderation and staff developmemt are seen as key areas by YHAFHE, concerned by the degree of divergence tending to occur as the system expans; the problem lies in resourcing, expanded and improved system and 'slotting into' developing systems for e.g. NTI would appear to provide a possible solution at this stage.

476. The primary justification for the existence of an assessment process in the TRADEC system is based on the apparent 'preference' of learners in the client population, for some form of assessment and certification, and the 'appreciation' of employers, of an assessment statement relevant to his needs. Even where the learner has experienced difficulties and low attainment in examinations within the school system, it is argued, he wants some form of social recognition for effort and achievement.

477. The assessment processes are intended to operate 'with the minimum of formal testing, and by assessment processes which are a natural part of the organisation and conduct of the course, and which do not produce undue organisational burdens' (YHAFHE 1982:30) The assessment process,* combining elements of continuous assessment of coursework and practical projects, assessment of the principal project and examination or set of phased tests, is based on a system of allocation of

(a) Continuous assessment consisting of
  (i) a mark awarded for private study such as homework and for the compilation of essential information.

  (ii) a mark for participation in at least six groups or personel projects at each stage.

(b) Principal project assessment, which carries
  (i) a mark awarded for the conduct and reporting of the project.

  (ii) a mark for a short oral examination concerned with the conduct and reporting of the project

(c) A short written examination, not exceeding 1½ hours in duration, ranging over the information elements of the syllabus units. Multiple choice or other question forms can be used. The end paper can be replaced by phased tests over the periods of the course, if required or other forms requiring written responses from the learner**

478. The weighting given to each element of assessment is as follows:-

	Marks possible
Course work continuously assessed	250
Practical work projects	250
Principal project - written report	200
- oral test	100
Theory paper or equivalent	200
	1000

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* See para 43

** The option for replacement of the written paper was introduced following pressure from colleges operating in the Business Zone.

Certificate specimen

YORKSHIRE AND HUMBERSIDE ASSOCIATION FOR FURTHER AND HIGHER EDUCATION

Powered Traction Trades Principles
(Stage One)

This is to certify that Thomas George Smith of

Stanfield College of Technology, Kedford

has completed Stage One of the Powered Traction Trades Principles Scheme comprising a study of essential engineering principles, together with personal project work closely related to industrial practice.

The following assessment of achievement has been made jointly by industrial and educational assessors and is based upon work done throughout the scheme:

	Marks obtained	Marks possible
Continuously assessed coursework	150	250
Practical work projects	206	250
Principal project — written report	175	200
— oral assessment	88	100
Assessment of theoretical and other related knowledge	09	200
	736	1000
	Attendance	over 75% of possible hours

SPECIMEN

A certificate is normally awarded to each person who attends for not less than 75% of the full length of the scheme and who completes all sections of assessment. Attendance relates to both the college-based element of the scheme and to the time allocated to project work in the place of employment.

Chairman of the Association

Principal of the College

Chief Officer of the Association

Industrial Assessor

Description of Principal Project

Dismantling, detailed parts survey, correction, replacement, re-assembly and testing of a motor cycle engine and gearbox unit. Estimation of costs, customer opinion and reaction. Survey of customer reasons for choice of vehicle and approach to servicing and replacement.

List of Other Projects

Compilation, through examination and enquiry, of information on differences in operation, serviceability, performance and wear of drum and disc brakes.

Simple enquiry into arguments for and against eliminating lead from petrol.

Preparation, and use in practice, of a battery maintenance schedule for a small vehicle fleet.

Identification, from diagrams and drawings, of clutch parts; their function and setting with reference to operational requirements.

Practical removal, checking and re-fitting of wheels; enquiry into justification for re-positioning running and spare tyres.

Practical communications relating to guaranteed anti-corrosion treatment, and conditions applying to accidental damage.

Syllabus Units Covered:

1.1	Materials, Fastenings and Adhesives
1.2	Basic Workshop Processes
1.3	Fuels and Lubricants
1.4	Elementary Electrics
1.5	Principles of Power Production
1.6	Principles of Transmission
1.7	Principles of Suspension and Steering
1.8	Principles of Braking
1.9	Body Construction Principles
1.10	Servicing and Recovery Processes

The detailed systems for allocation of marks for each component of the scheme are developed by the College. The paper is internally set and moderated by YHAFHE. The oral test is organised and staffed, using industrial assessors wherever possible, by the college.

479. No award is gained by learners who fail to submit 'a complete assessment profile' recording full assessment marks in the sections shown. Certificates are awarded to Learners who have satisfactorily completed all sections of assessment and have not less than 75% of the full attendance, including any time spent allocated for incompany activities. It is 'expected' that students maintain personal logs and their project folder in a form readily offerable for inspection, 'to complement the certification profile'.

480. The statement of assessment principles records that a 'pass/fail' concept is totally foreign to basic TRADEC philosophy and that the emphasis is placed on what has been done and achieved. Two fairly recent adaptations have taken place in details of assessment system. The statement formerly appearing on the Certificate, that 'it is considered that a candidate of average all-round ability, who has attended satisfactorily and completed all sections of assessment, should achieve not less than 50% of the gross score has now been dropped. This can be considered an improvement as the statement is clearly at variance with the philosophy so strongly stated above. The Certificate gives space for entry of specific tasks/projects undertaken. The Certificate does not provide information about achievement or competence in basic or core skills, or indications of the learners' areas of strength and weakness in 'skill' areas of practical activity, written and verbal communication etc., all of which, it is intended, should be built into the scheme process and therefore contribute to the construction of marks in each component.

481. YHAFHE states that 'Employers and Colleges with attribute significance to the assessment profile depending on the purpose for which it is being considered'. Employers are 'advised' also to consider the evidence of achievement contained in the students log and project folder.

482. 'Standards' are internal to the specific scheme. There is no attempt to standardise marks across schemes. It is argued that it is inappropriate to attempt standardisation

> 'the concept of uniform or comparable results has no meaning; for example, the operators of two different machines or processes cannot be equated to a common standard......... it is in any case of no value or consequence to do so since processes are subject to changes which make fixed standards useless. Also, it would be necessary to create discrete learner groups for each process in order to prescribe standards, and this is logistically impossible' (YHAFHE 1982: 7)

While the adoption of this principle (whose validity will be discussed later,* leads to the use of the marking systems as means of recording what the learner has done and achieved within the context of that scheme, according to its own internal norms: The 'internal norms' adopted vary widely between schemes, sometimes by virtue of variations in the length and intensity of the schemes and sometimes by virtue of the different

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* See paras 749 - 751

TABLE 8.1. OVERALL RESULTS IN TRADEC SCHEMES 1980-81

SCHEME		0-100 Marks	100-200 Marks	200-300 MARKS	300-400 Marks	400-500 Marks	500-600 Marks	600-700 Marks	700-800 Marks	800-900 Marks	900-1000 Marks
	1	0	0	0	0	5	25	39	44	14	0
MTP	2	0	0	0	1	5	30	44	45	8	8
	3	0	0	0	1	4	20	39	35	7	0
	1	0	1	0	0	1	15	46	38	11	0
FJTP	2	0	0	0	0	1	13	41	17	4	0
	3	0	0	0	0	1	13	22	11	2	0
	1	[illegible]	0	0	0	5	15	60	57	10	0
DCTP	2	0	0	0	0	4	9	19	12	1	0
	3	0	0	0	0	0	0	4	4	0	0
CTP	1	0	0	0	0	0	1	5	9	3	0
FTP	1	0	0	0	0	0	1	9	6	0	0

factors which are translated, finally, into a mark e.g. weight given to group contribution, or to progress relative to individual starting points rather than achievement relative to some normed level

483. In the case of the Distribution and Consumer scheme, where individual schemes may vary in length from 11 weeks to 36 weeks on the day release model, and where incompany elements additional to college attendance vary widely within, as well as between, schemes, but are in general limited, the student achieving a mark of 600/1000 will certainly have experienced less, and probably have achieved less progress and lower achievement levels in skills than the student achieving 600/1000 in the latter scheme. Both receive a TRADEC Stage 1 Certificate recording achievement supposedly reflected by the mark of 600/1000 but their progress, skills and experience will not be comparable. While this is compatible with the philosophy and intention of the TRADEC approach, there are questions both of the meaning and interpretation of Certificates by employers, and of wider currency and base for progression, tied up here. While the official statements claim that the basis of assessment are well understood by employers, there was no evidence provided by the survey of employers undertaken that this was the case.* The pattern of aggregate marks gained by candidates completing the schemes requirements in Academic Year 1980/81 is shown in Table 8.1. The model assessment range was 600-700 in FJTP, DCTP and DTP, 700-800 in MTP and CTP. The modal assessment ranges for learners with no other qualifications were the same as those for all learners.

484. Examples of the way in which the assessment system is translated into practice were provided by the case study scheme, revealing the variations in assessment and points of difficulty which arise.

In the College A MTP scheme:

- 75 marks were allocated of Life and Social Skills based on a criterion-referenced skills check list.

- 75 marks for 'supplementary studies' and 100 marks for 'Trades Principles' were based on exercise sheets relating to technical topics, given in the class.

- 250 marks were assigned to practical work projects other than the major project, accumulated through small assignments, including e.g. exercise sheets on 'materials', small investigations, practical tests in e.g. measuring - 'any way of testing we can find and think is appropriate'.

- 200 marks for the theory examination paper (written responses) to be allocated for content

- 200 marks for written project report allocated for content, presentation, drawings, ability to communicate in writing etc.

- 100 marks for oral assessment based on a selected project allocated according to

  (a) The students understanding of processes and techniques used in the manufacturing aspect of the project.

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* See Chapter 6

(b) The students interest in, and knowledge of, the use of his/her manufactured component.

(c) The ability of the student to give verbal information relating to the work carried out.

(d) The students interest in, and knowledge of, the material contained in his/her written report.

485. In the College A FTP scheme:

- 200 marks were allocated for continuous assessment, 10 marks were allocated, in each unit (then multiplied by 2), for exercises, classroom work etc.

- 200 marks were allocated for 7 practical work projects on

  e.g. tray setting and carrying
  customer relations etc.,
  afternoon tea (group project)

  Criteria varied according to nature of project.

- 50 marks were allocated for written project report as follows:-

Presentation	5
Illustration	5
Content	30
Relation to work	10
	50

  Marks were multiplied by 4 for final assessment

- 75 marks allocated for oral questions as follows (then multiplied by two)

  (a) what was reason for choosing project

  (b) how did you approach topic

  (c) what part of project interested you most

  (d & e) point out sections of your project which could be useful to you at work

  (f) what have you gained from the project

  (g) what resources did you use to complete your project

  (h) do you feel after completing your project you understand the topic better

- 200 marks for the theory paper were allocated as follows:-

Hygiene	30
Safety & Law	32
Money	15
Sales & Service	17
Processing & Prep	56
Handling & Storage) Materials & Supplies)	50

486. In the College F DCTP scheme (Stage 3):

- 300 marks were allocated for continuous assessment of course work. Practical work projects combined & projects/exercises were assigned 50 marks each (reduced from the required 450 marks for these two components).

  Criteria varied according to the nature of the exercises, which included multiple choice papers in Management Theory, an exercise involving working out of a training exercise etc. but based largely on content, 'Class Contribution' was also used as a criterion - described as 'very subjective' by the Course Tutor.

- 300 marks were allocated to the Theory paper (increased from required 200), assessed on content criteria.

- 250 marks were allocated to the written project report as follows:

  50% for content
  20% for presentation and sequence
  15% for illustration and drawing
  15% for use of English.

- 150 marks were allocated for one assessment, allocated on criteria of confidence, expression, communication etc. The case study investigations and the wider survey revealed that:-

487. The marking schedules developed in the colleges, within the framework of the assessment elements and their respective weightings, recorded achievement and progress on a far wider range of criteria than traditional assessment forms and those associated with conventional courses. They did not however, by virtue of freedom of the college to devise its own schedule, represent uniform means of measuring performance, experience and attainment. Accordingly there were substantial variations shown by the case studies, in the weighting given to different components of any given assessment e.g. practical and manipulative skills, writing skills, communication skills etc., and to the norms criteria by which they were assessed. In the case of SLS these ranged from purely subjective assessments without criteria of e.g. group contribution, to translation of parts of basic skills checklists into marks.

488. Thus the marks pattern for any given scheme was as strongly coloured by the educational 'stance' of the teacher as it was by the capacities of the learners under assessment. There was little learner participation in the assessment processes. The assessments in almost all schemes investigated, were predominantly devised and then applied to the learners performance by the assessor without involvement of the learner in establishing the basis of the mark scheme or in the review and assessment of performance. There were several examples, however, of schemes in which learner involvement and assessment was adopted within particular components. For example in College J, MTP learners had participated in construction of the mark schedules and had then engaged with the Course Tutor in self assessment of performance against these schedules. The Fabrication scheme too affords an example of learner involvement through self and peer assessment. There was, at the time of the research, some indication of these practices spreading through inter-college exchange.

489. In conjunction with the low level of learner participation, there was little evidence of the assessment systems being used formatively. In the absence of explicit goal-directed learning processes understood and subscribed to by the learners* the formative use of assessment in its full sense is difficult to achieve. Learners indicated both in questionnaire returns and in more detailed discussions in case study interviews that they received little individual feedback on development. 79% of all learners claimed that they had been invovled in discussion of their marks 'less than regularly' with college staff, 43% 'rarely' or 'not at all'. In discussion of general progress 85% responded that their progress had been discussed with them 'less than regularly'. The difficulties created by a marks-based assessment system in this context were illustrated by one Course Tutor who said that individual marks allocated by the Tutors were not given to students or discussed with them as they were trying to avoid competition between students, which was against the whole ethos of the course. There was an attempt to discuss general progress with students in this case, although few students perceived this to be the case.

490. The logs described in the assessment guidelines were in most cases completions of course material, notes and drawings and not the diaries or week by week personal records of skills learned and experience gained, which are associated with e.g. DITB and RPITB UVP schemes, and which are used for regular review and discussion. Teachers who had attempted the use of such logs in the DITB/TRADEC schemes had commented on the extreme difficulty of maintaining them in a college-managed scheme.

491. The assumption that a form of certification and assessment is preferred by the learners was strongly supported by the case study interviews, in which 80 per cent or more learners expressed that preference. The learners welcomed the balance in assessment between continuous assessment and end-tests; their lack of involvement in the assessment programme was not a source of dissatisfaction, since very few expected, on the basis of past experience, that assessment could be undertaken by anyone other than the teacher. In schemes in which general reviews of the scheme were held, these were commented on and welcomed by learners.

492. Teachers found relatively little difficulty in implementing the assessment from an organisational point of view except in the case of maintenance of individual records of work in systematised log or diary form - a practise which had in most cases been abandoned after a short period of operation. There was a degree of questioning among Course Tutors and other Course Team members of the educational principles underpinning the assessment system, and a lack of confidence in the general validity and reliability of methods being used for allocating marks to e.g. personal qualities, group contribution etc., which are well recognised not to be amenable to formalised grading.

493. The essential features of an assessment system appropriate to the client population and aims of Vocational Preparation** are that

(a) criteria for recording assessment are not determined by subject area

(b) it provides a continuing record of student progress

(c) the student is actively involved and is a partner to the process, which is both integrated with the teaching and learning process and used formatively to facilitate teaching and learning

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* See Chapter 5

** See FEU 1981.

(d) evidence of attaining given levels of achievement must be given

(e) the final record is to be used as a public document for employers and others, and should provide a base which facilitates progression to other schemes.

494. The question of the extent to which the TRADEC system matches these criteria must be considered. Clearly, the system as it currently operates, at the level of implementation, is based both on construction of a continuing record of student progress and achievement, is embedded in and integrated with the scheme processes and incorporates measurements of performance, competence and achievement across a range of skills and abilities beyond the conventional 'academic'. However, it involves the learner in the assessment process only in exceptional and limited instances, and is not, in general, formatively used, this being limited to use of assessed exercises as instruments of teaching and learning at group level. Neither does the Certificate constitute a record of the achievement, performance and competence of the participant in the individual vital areas of basic or core skills, or a record of experience gained. The measures of performance etc., gained and recorded throughout the course are obscured by the aggregation of marks on the 'certification profile'. Similarly development in personal qualities of e.g. social maturity are also obscured, since any marks allocated to these dimentions of development are also obscured in the aggregation, (not to mention the question concerning the validity of marks for such dimensions). The absence of recording of experience or attainments in different areas also reduces the efficacy of the certification profile in assisting appropriate progression.

495. Use of aggregated, directly comparable marks within a scheme whether allocated on a norm-referenced basis or on a criterion-referenced basis related to norms of levels of performance it is reasonable to expect, can also engender the perceptions associated with the pass/fail concept which the system so strongly rejects. As the Course Tutor of one scheme expressed it:

> 'even though there are no pass marks, students feel that X per cent is a magic figure - it does help the students that are around that mark, but students that are way down probably tend to have given up.'

496. The lack of learner involvement and formative use of assessment is not a fundamental weakness of the system. The system itself can accommodate the whole range of college-devised assessment systems from those based fully on Trainee Centred Reviewing and full profile recording systems to those based entirely on traditional teacher assessed exercises and assignments. The weakness lies in the form of the final certification which, far from providing a stimmulus to the former types of system now widely acknowledged to be the more appropriate for this band of provision, allows for easy gravitation to the latter. The parallel with the 'array' structure is obvious. In any system or structure which allows scope for processes and practices to regress to the traditional, processes and practices will, in many instances, so do, if only because the institutional

context, by its nature, supports and facilitates implementation of the traditional rather than the innovative.

497. The former argument has compared the TRADEC system with the ideal, as it is currently perceived. When compared with other schemes and courses under the 'conventional' umbrella, the TRADEC system shows strengths in that the components can cover a wider range of learning and development processes than do the examinations and continuous assessment processes asseciated with the conventional qualifications. The Certificate also provides marginally more information although its lack of currency and of 'standards' association, of course, renders it much less powerful as a statement of the capacities of its holder than for example the internationaly recognised City and Guilds Certificate. In comparison with the other Vocational Preparation schemes, the system has strengths relative to the 'Certificate of Attendance' type of assessment which does not include measurement and recording of progress and achievement translated into a statement of competance, but seeks only to record what has been done. The features of TRADEC in which recording is not linked to an explicit learning process and is therefore not used formatively to any effect has been shown to be shared by many other schemes on the former YOP and related models.*

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* See MSC, 1980

CHAPTER 9. COSTS AND VIABILITY

498. The costs of operation of TRADEC, in comparison with the costs associated with other modes of provision, may be consider at two levels.

(a) the costs of the operation of the system as a whole

(b) the costs of launching and running indivudual schemes, at colege level.

Costs by themselves, unless accompanied by the considerations of effectiveness (which have been the central concern of the rest of this volume) mean little. Reference to relative effectiveness therefore rears in the following discussion, and renders comparison complex and conclusions difficult.

499. Quantitative costing of the operation of the TRADEC system in comparison with that of the variety of Conventional and Vocational Preparation system was neither appropriate nor possible within the scope of this study. However, some qualitative assessments can be made concerning the economy of operation of the system.

500. TRADEC proponents claim that the system as a whole is economical in its operation, when compared with conventional schemes, by virtue of its use of an adaptable anatomy and methodology as the basis for the scheme specification, as opposed to detailed listings of content and/or specific learning objectives. Detailed specifications of content, it is argued, are expensive to maintain, since they require constant revision and updating, and therefore mechanisms for feedback, consultation and rewriting. Detailed content specification also makes necessary the development of a proliferation of schemes to meet the needs of distinct, but related, groups of occupations. Such approaches, it is further argued, carry additional disadvantages. Problems of relevance are inherent in systems specifying content to meet generalised and assumed need, removed from the points of actual need which they ultimately seek to serve. These systems are also experiencing increasing problems caused by the 'lead time' of change in syllabi compared with the accelerating rate of industrial change.

501. The use of the scheme 'anatomy' on the other hand, with specification limited to generically applicable topic areas, does not require updating. This process, it is asserted, will occur automatically at the point of implementation of the scheme, through liaison and cooperation between the employer and the college; over the specific details and emphases of scheme content. The Writing Groups are, therefore, suspended following completion of their writing task and revision of the draft scheme on the basis of information provided by the pilot schemes. They are called into play again only if fundamental changes are required. There is strength in the claims concerning the advantages of the anatomy, both from the point of view of economy of operation, and that of capacity of the schemes to meet, and keep pace with, changing and diversifying needs. The difficulties increasingly being encountered by the Conventional courses, in revision and updating of syllabi and specifications are apparent, more marked in the traditional, centrally-devised syllabus-based courses than in the transitional courses affording space for college-devised elements, designed to meet special needs. However, the bodies concerned are making

their own adjustments to meet these challenges. One example is given by the work of City and Guilds in developing a 'master syllabus' for Engineering craft courses, from which selections of content can be made.* The components of such a syllabus are more readily updated, and similarly, the schemes which may be constructed from its components are more readily adaptable to a range of different needs.

502. The claimed economy of operation of the TRADEC system is, in these respects, apparent. The system does avoid the need for a proliferation of courses and therefore, for resources to support their writing, even though the range of participants is currently considerably narrower than that envisaged. Similarly problems of 'out-of-datedness' are not occurring in schemes under implementation, and Writing Groups have not had to be recalled to undertake this type of revision.

503. There are, however, some disadvantages which counterbalance the undoubted economy of the TRADEC system, here. The self-updating of TRADEC schemes to meet current needs is specific to particular companies and learners. The disadvantage can be explained here with reference to the hypothetical case of the learner based in a small company using obsolescent equipment and therefore requiring skills in using that equipment in order to secure current employer needs. The danger is that if as the system intends, the scheme operates around his/her job and work processes, the learner will emerge ill-prepared for subsequent movement to another job or for adjustment to new processes at a later stage, should the company not wish to release him/her for a further basic course.

504. The example articulated by a BEC officer was that of the clerical/secretarial worker, currently using typewriters at work. For a TRADEC scheme to be relevant to that learners' short term future needs, it would need to have available in the college the very equipment which it claims widespread use of the TRADEC system would render unnecessary. The alternative solutions which proponents of TRADEC might suggest e.g. gaining the necessary skills in another company, or further release for retraining, are not convincing. While the TRADEC system seeks to serve current needs, and stresses this as a principle of its operation, a failure to meet short-term future needs arising from new technology is clearly serious, both for the learner, and the company.

505. While it is recognised that the intention of the schemes to prepare for change is producing flexibility of mind and purpose, this remains insufficient. It is of interest that the most recent proposals (at the time of writing) from the MSC in respect of the YouthTraining Scheme, make explicit the 'need to prepare young people for future demands which may be made upon them with increasing application of new technologies to industry and commerce'. On of the core modules in schemes under development is, for these reasons, concerned with computer literacy/information technology and it is noted that

> 'It may be that in some YTS programmes there may be no suitable learning opportunities for particular modules such as computer literacy, and these opportunities will have to be provided totally off-the-job. In some clerical traineeships, the manipulative skills are/may be very limited, and need to be supplemented by off-the-job activity'**

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* See the 'Hargreaves' report, City & Guilds, 1981

** Unpublished MSC paper 'Guidelines on Core Skills' 1982

506. In general, then, the system does operate economically at the level of production and maintenance of the published schemes. The system, however, holds some disadvantages in its ability to prepare for short term future needs both by the absence of specification and updating/revision in key areas, Its advantages against conventional courses lie in its directness of response to current needs.

507. Comparison with other modes of provision in the Vocational Preparation 'band' is rendered difficult by their infancy or by the fundamental changes to which they are currently subject, or both. Proponents of the TRADEC system have claimed it to be more economic in operation than the looser set of organisational arrangements associated with the wider UVP programme. That these arrangements have been anything but cost-effective for the numbers involved is widely accepted. A particular feature of the UVP arrangements which has been identified as both costly and ineffective have been the scheme Steering Committee arrangements and the cumbersome centralised scheme approval mechanisms.

508. Another feature of the UVP 'system' which has been costly, but effective in terms of its relevance, has been its openness to development of each scheme 'from scratch', with the greater employer involvement which that approach brings. However, disadvantages in the form of limits on transferability of learner can also occur here. However, the fact that UVP is not a 'system' in the same sense as TRADEC is national rather than regional, and is currently undergoing transforming change in its alignment with YTS and its decentralisation of control and organisational arrangements, renders the costs comparison at this level almost irrelevant. The importance of the initial UVP operation has lain almost entirely in the accumulated experience of methods of operation appropriate to the target group, which it has afforded.*

COSTS OF LAUNCHING AND RUNNING INDIVIDUAL SCHEMES.

509. The introduction of new and innovative approaches at college level is always an expensive process. In the field of Vocational Preparation, the curriculum approaches are generally held to be 'heavy' on staff time, and therefore comparatively expensive to run. In making this assessment, the comparison is, of course, being made with the Conventional style of course, to which the system is primarily geared. Proponents of the TRADEC system claim that 'traditional' perspectives on costs are inappropriate, and argue that a 'new balance sheet' approach to costs, in schemes such as TRADEC, provides a fairer picture of the real costs of operation. Here it claims 'the contributions made to the operation of the schemes in terms of staff time, use of premises and use of equipment and plant, must be counted to the credit side of the overall costing, so that the contribution from the Education Service is correspondingly lower than for schemes which are wholly contained within the Education Service'. (YHAFHE Unpublished paper on social & Economic Benefits of TRADEC, ind)

510. Another factor included in the costing equation proposed is that of reduction of the need for repeated high capital investment in colleges, because, it is claimed, it is not necessary to install facsimile working situations. The installation of such equipment, because of the expense and rate of obsolescence of the equipment concerned. Other features which represent potential costs savings are it is claimed those of better use of

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* See MSC Youth Task Group Report, 1982

existing resources by virtue of the higher 'throughput' of students, by the flexibility of timing of the scheme (i.e. not tied to the academic year) and generally improved viability through larger groups.

511. The new balance sheet argument has been reviewed here, in a number of ways.

> Firstly, by interview on costs issues with Heads of Departments.
>
> Secondly, by recording Course Tutors assessments of time spent in launching and running TRADEC schemes in comparison with conventional and other Vocational Preparation schemes.
>
> Thirdly, Course Tutors appraisal supplemented by the researchers' appraisals in the Case Study scheme of the importance/contribution of the factors included on the credit side within their own scheme (a) currently, and (b) potentially;
>
> Fourthly, by the application of DES costing procedures to two selected Case Study schemes, and two selected Conventional Courses offered in the same department.

The last exercise was undertaken in order that comparative costs figures may be obtained, and assessments subsequently made of costs on - costs off according to the special features of the operation of the schemes unaccounted for in the 'formula'.

512. There was general agreement among Heads of Departments and Divisions interviewed, concerning the high levels of staff costs, both in the development phase and in the recurrent running costs of all types of scheme. The perspectives brought to bear on these costs questions did, however, differ widely. One perspective was that of recognition of the inevitable high costs of innovation, and of the justification for this high cost in the case of TRADEC, by virtue of the schemes' ability to draw in former non-participants and in some cases, the importance of giving a foothold and some experience in an area which was seen as a major growth one in the context of national training developments. Others by contrast, considered high costs levels, which were not in reality balanced by the elements on the other side of the 'costs equation' or new balance sheet, put a question mark over the scheme. This was particularly so in a context in which increasing demands were being made on the college, for new work in other areas.

513. Some Heads of Department claimed that the scheme could operate effectively only if staffed with higher graded staff than would normally be allocated to a Burnham V course, rendering the scheme relatively expensive. Again, it was found that TRADEC proponents and others differed in willingness to place higher graded staff onto the scheme. Similarly, the group size at which the scheme was considered viable varied according to the commitment and support of the Head of Department/Principal, and the extent to which he/she saw it as either an investment for the future and/or a social responsibility.

COURSE TUTORS' APPRAISALS OF TIME-COSTS AND THE EXTENT OF 'NEW BALANCE SHEET' FACTORS.

514. Course Tutors were asked to assess the time-costs of their scheme, both in the context of the 'new balance sheet argument' and against other courses in which they had participated.

515. All *Mechanical Trades Principles* Course Tutors but one, agreed that the scheme was expensive in terms of staff time. While equipment and materials from companies represented some savings, this was small. All, however, spoke of the wider benefits of improved employer contact, both for other courses and general company-college relations. Most considered that the return in terms of learner outcomes, justified the effort and expense involved.

The following observations serve to illustrate the views expressed.

> 'Certainly, launching TRADEC was very expensive: its easy to pour resources, especially time, into a pilot course. At the start start of the second year, the Head of Department had decided that resources should be much more in line with City and Guilds 205' (College J)

This was of interest, since this particualr scheme had fewer participating companies with which to maintain contact, than any other.

The Course Tutor of College M, observed that the scheme was

> 'very expensive and especially time consuming. The use of other resources, such as equipment, leads only to small savings'

He commented further that the UVP funding had been very important in securing extra industrial liaison time. The Course Tutor of the Case Study scheme considered however, that the scheme was no more expensive, overall, than a conventional course, and was considerably better 'from a college point of view' than Craft Practice, on the grounds that

> 'you don't need the machinery that you needed on a Craft Practice course, because not all of the lads are needing to use the same sort of machine, because of their different backgrounds'

Only in the case of College H, running the scheme which had most obviously lapsed into conventional and fixed form, did the Course Tutor assert that it was only the 'development costs' that were high and thereafter the running costs were the same as those in a conventional course. In this case, this was true because the scheme had *become*, to all intents and purposes, a conventional course.

516. The responses of Course Tutors in Fabrication and Joining Trades Principles were almost identical. The scheme was seen as 'very time-consuming and expensive' with the only real savings being made in respect of materials supplied by the participating companies. Again, it was widely considered that the return in learner outcomes, and in the nature of the client group, justified effort and expense.

517. Responses obtained from Course Tutors in Distribution and Consumer schemes were broadly similar, but offered some interesting perspectives which differed from those in the Engineering schemes. The scheme was again considered relatively expensive to launch and run, by all respondents. The 'new balance sheet' argument was generally thought not to hold. In-company elements were very limited, and only in the College E scheme was the input, from the companies, of expertise and supervision, considered

to provide any real contribution to scheme costs. The supply of equipment/materials was very much less significant in this scheme than in the Engineering schemes. However, the good maintenance of demand in some colleges meant good throughput of students, which reduced costs/student considerably. In one college, in which the Head of Department had reservations about the scheme because of the costs involved and because of its 'bitty' nature, it had been proposed that the scheme needed to be run continuously if it was to become reasonably economic. The scheme coordinator* considered that a 'quiet period' was essential, to get on with recruitment and planning activities. He agreed that the scheme was an expensive one, also encountering organisational problems associated with team-teaching hours, and use of over-time and part-timers.

518. All Course Tutors again considered that the return justified the effort, since Distribution and Consumer Trades Principles was really filling a gap in provision.

519. A similar view was held by Commercial Trades Principles Course Turors. Broadly compatible observations were made concerning the expense of the scheme, from the staffing point of view. These too, confirmed that there was little balance to costs arising from employer input. The Food Course Tutor added the important observation that recurrent costs only reduced substantially if the TRADEC methodology was not properly adhered to. If the scheme operated as intended, recurrent costs remained high.**

520. Where Course Tutors were asked, in written responses, to assess expenditure of time on TRADEC schemes relative to that on comparable conventional and Vocational Preparation Courses, the pattern represented in Table 9.1. emerged. It can be seen that the TRADEC scheme was generally regarded as more expensive in terms of staff time than conventional courses, and greatly so in 14 of the 20 cases. Very few were able to draw comparisons with other non-traditional modes, having little or no experience. Of those able to make the comparison, 4 out of 5 considered the levels of time expenditure in TRADEC to be similar to those in other modes, one considering the time expenditure in TRADEC to be slightly greater.

521. In some instances, Course Tutors were able to provide estimates of time spent in the development, planning and launching of subsequent courses. Estimates of between 100 and 500+ hours spent in activities including contacting employers and designing the learning programme were given for the Engineering Zone and Commercial Trades Principles schemes. These times were roughly halved for subsequent courses. Estimates provided by Course Tutors of Distribution and Consumer Schemes were substantially lower, in the 20-60 range. The estimates are summarised in Table 9.2.

522. The data provided by all sources used in the research, including detailed detailed observation of schemes and compilation of data pertaining to the operation of other types of courses, led the researchers to support the view that the schemes, if operated according to the tenets of the system, are expensive in terms of staff time in comparison with conventional courses, and are roughly comparable with other college-managed schemes of Vocational Preparation designed for the client group of young people in employment.+

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* See para 115

** See account of resources problems in Case Study Report 5, Chapter 10

+ Supplementary data provided by a parallel investigation of 'alternance' schemes commissioned by MSC.

TABLE 9.1. ASSESSMENT OF COURSE TUTORS LEVELS OF TIME EXPENDITURE IN TRADEC RELATIVE TO OTHER TYPES OF COURSE.

	COMPARISON WITH CONVENTIONAL COURSES			COMPARISON WITH OTHER VOCATIONAL PREPARATION COURSES			
	Less than equal to	slightly greater than	much greater than	Less than equal to	slightly greater than	much greater than	Not Known
MECHANICAL TRADES PRINCIPLES (4 responses)	1	1	1	2	-	-	2
FABRICATION AND JOINING TRADES PRINCIPLES (7 responses including 3 Course Tutors from one scheme)	-	-	7	1	-	-	6
DISTRIBUTION AND CONSUMER TRADES PRINCIPLES (5 responses)	-	1	4	1	1	-	3
COMMERCIAL TRADES PRINCIPLES (2 responses)	1 (=BEC, but > ordinary day-release)	1	1				2
FOOD TRADES PRINCIPLES (2 responses)			2				2

TABLE 9.2. ESTIMATES (by Course Tutors) OF TIME SPENT IN PREPARING AND LAUNCHING TRADEC SCHEMES, for (a) THE INITIAL SCHEME (b) SUBSEQUENT SCHEMES

(N = 11)

HOURS	INITIAL SCHEME					SUBSEQUENT SCHEMES				
	MTP	FJTP	DCTP	CTP	FoodTP	MTP	FJTP	DCTP	CTP	FoodTP
0- 49			1		1		1	2		1
50- 99			1					1		
100-149		1			1					1
150-199						1				
200-299		1					1			
300-399	1									
400-499		1		1						
500+				1						
Not Known			1				1		2	

523. Where the 'new balance sheet' arguments were tested with reference to the research data, it was concluded that, as the scheme currently operates, the costs 'off' (i.e. on the credit side) are very limited while costs 'on' in terms of staff time, are very substantial. In particular

- the degree of incompany work is currently insufficient for any savings on capital costs to be possible or likely. This argument only holds good in an anticipated future state of greatly expanded number of participants with significant opportunities for incompany practice and supervision. Workshop practice in the college remains to many companies and learners, the most significant part of the Engineering Zone schemes. The fundamental problem which arises here already raised - the need to ensure that participants are adequately prepared in key areas, of change whether or not their companies are using new technologies and equipment reduces possibilities for capital costs savings.

- input of company staff is also very limited, and the quality of supervision received, if any, undetermined. While there is a potential saving in costs here, this element cannot be considered to represent a significant contribution to the credit side, within the schemes as they currently operate.

- the contribution of materials by employers does represent a saving of some significance in the Engineering Zone schemes.

- the better use of college resources afforded by flexible timing of schemes has materialised in only one or two cases. Most schemes are run to the standard academic year, or term currently.

524. However, the potential of the system to operate with a substantial employer input which represents real cost savings, and to use existing resources more effectively, has been demonstrated in one or two schemes.* It should be noted, though, that the model itself acts against its own intended operation in some of its key areas, particularly that of employer involvement. The difficulties inherent in the system are overcome only with the very high degree of staff commitment and time noted earlier.

525. A quantitative assessment of the costs of TRADEC and selected conventional courses offered in parallel, was attempted in two of the case study colleges. This affords a basis for discussion of quantitative and qualitative aspects of costs in specific well documented instances.

526. The first comparison was made between TRADEC Mechanical Trades Principles and Mechanical Craft Studies (2nd year in each case). Here cost/student/hour was greater in TRADEC than in Mechanical Craft Studies, but total cost/hour of the course was less. (Table 9.3)

527. Three elements come into play here

(a) the effects of staffing levels.

The high proportion of LI staffing in the TRADEC course rendered its staffing costs substantially lower than those of the Craft course.

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* See e.g. College E, Distribution & Consumer Scheme

(b) the small class size rendered cost/student hour greater. Recruitment difficulties of recession appeared to have affected the TRADEC course more greatly than the Craft course, despite its wider client band,

(c) the effect of industrial liaison time reduced the effective 'Average class size' still further, for the purposes of calculation, again raising the TRADEC cost/student/hour above that of the Craft course.

Since there was little systematic company based learning, the total hours of teaching could not appropriately be considered greater than those spent in the college, in this instance.

Materials costs were also greater in the TRADEC scheme despite 'employer Contributions because of the greater amount of practical work undertaken in the college setting. It is interesting to note that the Course Tutor of this scheme asserted that the costs of TRADEC and Craft courses were comparable. This was the case, where student numbers were disregarded.

528. To broaden the discussion beyond this particular case, it can be seen that in those TRADEC schemes using more highly graded staffing levels comparable with or above those used in Conventional courses (there were many examples of this in MTP) costs of TRADEC increase relative to those of the Conventional course. In schemes with greater numbers of students (again there are many) relative costs are reduced, but the reduction is counterbalanced by the effect of increased industrial liaison time.

529. The second comparison was made between BEC National Diploma * and TRADEC stages 1, 2 and 3 in College F (Table 9,4) Here, the costs/hour of each course were comparable. Cost/student/hour was greater in TRADEC, despite the high number of students, by virtue of the effect of liaison time and the way in which groups had been divided for teaching. (The disparity in cost/week, of course, reflects the difference between 21 hours and 6.75 hours of college attendance.

530. TRADEC was clearly the more expensive course. The absence of any systematic company-based work again prevented cost savings through company-based and company-supervised learning from coming into play. Consumable materials were less significant in these courses, and there was little employer contribution in the case of TRADEC.

531. While the comparisons are necessarily untidy ones, and elements such as capital costs etc. have been excluded (on the assumption of comparability between the schemes) the exercise does serve to show more tangibly the source of the perception of many Course Tutors that TRADEC is relatively expensive, the extent to which it is so being determined by staffing levels (in grading terms), class size, amount of industrial liaison and remission time. While other factors were not significant in these cases, instances can be identified, in the preceding chapters, of a few schemes in which real costs savings could be expected through company-based contributions to the systematic learning process.

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* This was considered to be the best comparison which could be achieved in the Department in question.

VIABILITY OF THE SCHEMES

532. The arguments concerning viability relate, again, to

(a) the viability of the system as a whole

(b) the viability of individual schemes,

the two levels being interrelated.

533. The system is clearly viable at regional level, in the sense of being economic, supportable and successfully sustained over a period of almost a decade. The total number of participants have continued to increase, as have the number of operational colleges within the region, and there is no reason to suppose that this growth will not continue. A matter of concern, however, has been the apparent difficulty encountered over recent years in transplanting the TRADEC system from the Yorkshire and Humberside region into other regions, raising questions about the viability of the system, both in other regions and at national level.

534. Questions have been raised concerning the relationship between the system's success in establishing itself in Yorkshire and Humberside, and the industrial and social characteristics of the region. No detailed study regional factors associated with the successful introduction and viability of courses has been possible here. However, the experience of different regional bodies and individual colleges which have attempted, and in some cases succeeded, in introducing and maintaining TRADEC, has served to shed some light.

535. The two factors which appear to be associated with the successful introduction of TRADEC are

(a) the existence of 'hungry' colleges, or colleges recognising the need to develop new lines of activity in the short-term future, for survival.

(b) The existence of a supporting organisational infrastructure in the college's own region or area.

Although the characteristics of Industry in any given area will necessarily be linked with the extent to which colleges are in demand, the conditions described are by no means specific to Yorkshire and Humberside, but are, by contrast, widespread. In addition, the existence of the stated target population in large numbers in all regions is beyond dispute.

536. Questioning of those responsible for the successful launching and coordination of TRADEC in Scotland concerning the conditions favourable to implementation produced responses almost entirely along these lines, while the experience of College S* provides the classic example of the 'hungry college' being stimulated to action. Difficulties in establishing the schemes in London and the Home Counties, by contrast, were attributed to the diverse and non-traditional nature of Industry and to the density and maintenance of the population, which meant sustained demand on the colleges and little response either from the colleges or the RAC to the ideas of TRADEC. In Northern Region however, difficulties in implementation were attributable neither to lack of motivation of the colleges, nor to lack of support and active promotion from the Northern Council for Further Education. Participation in the system as a whole, through participation in

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* See para 98

YHAFHE Committees and Writing Groups, and in work on the development of a Regional Committee Structure to parallel that of YHAFHE, was lively and efforts to launch schemes, particularly in Powered Traction, intensive. Here, difficulties encountered appear to be similar to those affecting the successful launch of new schemes in Yorkshire and Humberside in 1981/82 and attributable to the same factor of economic circumstances.

537. Two cases of failure to launch schemes drawn from the Southern England are of interest.

One college in the Home Counties had attempted to launch a Distribution and Consumer scheme in 1980/81. The scheme was developed and employer liaison undertaken in order to recruit learners to the scheme. The response from employers had been 'very poor' despite the input of considerable time

Another college in the South Midlands had considered offering Mechanical Trades Principles, and had worked with Yorkshire and Humberside Council on development of the scheme. The scheme had been offered in 1980/81, but had failed to get off the ground. In this instance the reason for failure was purely financial. It had been planned to link the scheme with 40-week operator training of EITB, the grants for the latter had been withdrawn shortly before the planned launching thus undermining the scheme which did not run. In neither of these cases are regional factors indicated as significant in the failure of the scheme to run.

VIABILITY OF INDIVIDUAL SCHEMES

538. At the level of individual schemes, the viability argument is based on the assertion that the schemes, by spanning a wide range of generically related occupations, have a far wider population from which to draw than do the conventional Courses, particularly in the case of operator courses. Thus, schemes are more likely to attain viability in terms of minimum numbers than are more narrowly aimed courses, (as well as avoiding the expense, already mentioned* of writing, training . developing and operating a proliferation of courses)

539. The research findings have shown that, in all areas, the actual band of recruitment is much narrower than that possible and intended. This state of affairs is attributable partly to the approaches to recruitment used by college staff, partly to the perceptions and training traditions of employers, and partly to the problems of availability of time to seek out and recruit the non-traditional groups. However the potential of the system to draw on the wider bands is undeniable.

540. There have been few problems in achieving viability in the Mechanical and the Fabrication Schemes. The schemes' role filling the 'Craft Practice' gap has given them their sound base of operation, from which wider groups have been sought and secured in some cases. The drop in numbers in 1981/82 resulting largely from the effects of recession on recruitment in companies, has however rendered non-viable some of the schemes whose liaison and contact has not been extended beyond the stable 'core' of users. The effects of recession have undoubtedly hit the Mechanical Trades Principles schemes harder than the Fabrication schemes. The only schemes to have been successfully launched in new colleges in 1981/82 have been Fabrication and Joining schemes.

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* See paras 501 - 505

541. Distribution and Consumer schemes have encountered relatively few viability problems, although the actual client group is much narrower than that attended. Here, the viability of the scheme appears to be more attributable to the success of the scheme in meeting a need for a more practically oriented course in Distribution for the 'Sales Assistant' type of employee. The scheme has continued to expand, within the narrow client band, despite the effects of recession. In both the Engineering and the Distribution areas, then, TRADEC has been successful in achieving and maintaining viability very much more rapidly than have conventional 'operator' courses or UVP counterparts. The success is not, however, attributable to the schemes' wide span of operation, in terms of occupational group, but rather to its filling of gaps in provision to meet the needs of a specific narrow but large market of young workers.

542. In Commercial and Food Trades Principles schemes, there has been clear difficulty in finding a ready market in the principal, intended target group.* While several schemes have been launched and sustained successfully in two colleges in the case of Commercial Trades Principles, the continuation of Food Trades Principles is in doubt in both of the colleges in which it has been implemented, and a third college which has endeavoured over a period of two years to launch the scheme has been unsuccessful in gaining sufficient recruits. Mechanical and Powered Tractor Trades Principles have attempted to establish their pilots during the worst period of recession, and despite interest and, in some cases, intensive effort in several colleges, including a number of Northern Region Colleges, no schemes have succeeded in establishing viable groups. Whether a market will be found for these schemes remains to be seen. Some of their problems at present may stem from the fact that they are not seeking to exploit their full range and are experiencing similar recruitment problems to that of their conventional counterparts.

543. The 'adult' and 'retraining' dimensions also open up a potentially very large market beyond that already established. However few inroads have been made here, for reasons similar to those which have limited recruitment from the full occupational range of schemes.

544. Overall, then, the viability or otherwise of individual schemes appears at present to stem from their relationship with specific areas of need and demand within narrowly defined bands, rather than from their generic nature.

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* See Care Study Reports 4 and 5 Chapter 10.

TABLE 9.3a

MECHANICAL CRAFT STUDIES (2nd Year) COLLEGE A

Length of Course	No. of Places	No. of Students	No. of Hrs/wk	Student Hrs	Average Class Size	Princ Lect	Sen. Lect	Lect II	Lect I	PT Casual	PT Ass. Lect.
36	-	14	8.5	119	14.0	-	-	4½	4	-	-

LECTURER COST (1981 rates)

	Lecturer Mix	Salary	Teach Hrs.	Salary	Teach Hrs.
		Average per Grade		Average for Course	
Lect II	52.9%	11,655	18.5	6,166	9.8
LECT I	47.1%	9,545	21.0	4,496	9.9
TOTAL	100%	-	-	10,662	19.7

(a) Cost/hour: £15.04 (b) Cost/Student/hour: £1.07

(c) Cost/week: £127.82 (d) Cost/Student/week: £9.13

CONSUMABLE MATERIALS

£100 per Course

Cost/Student = £7.14

Cost/Student/Hour = £0.02

TABLE 9.3b

MECHANICAL TRADES PRINCIPLES (2nd Year) COLLEGE A

Length of Course	No of Places	No. of Students	No. of Hrs/wk	Student Hrs	Average Class Size	Princ Lect	Sen. Lect	Lect II	Lect I	PT Casual	PT Ass. Lect.
36	16	9	7	63	7.9	-	-	1	7	-	-

LECTURER COST (1981 rates)

	Lecturer Mix	Salary Average	Teach Hrs. per Grade	Salary Average	Teach Hrs per Course
Lect II	13%	11,655	18.5	1,515	2.4
Lect I	87%	9,545	21.0	8,304	18.3
TOTAL	100%	-	-	9,819	20.7

(a) Cost/hour: £13.18

(b) Cost/Student/hour: £1.67

(c) Cost/week: £92.26

(d) Cost/Student/week: £11.68

CONSUMABLE MATERIALS

£100 per Course

Cost/Student = £11.11

Cost/Student/Hour = £0.04

TABLE 9.4a

BEC NATIONAL DIPLOMA (COLLEGE F)

Length of Course	No. of Places	No. of Students	No. of hrs/wk	Student Hrs	Average Class Size	Princ. Lect	Sen. Lect	Lect II	Lect I	PT Casual	PT Ass. Lect.
33	-	24	21	504	18.7	3	3	12	6	3	-

LECTURER COST (1981 rates)

	Lecturer Mix	Salary Average per grade	Teach Hrs. Average per grade	Salary Average for Course	Teach Hrs. for Course
Princ. Lect	11.1%	15,575	14.5	1,729	1.6
Sen. Lect.	11.1%	13,562	16.5	1,505	1.8
Lect II	44.4%	11,655	18.5	5,175	8.2
Lect I	22.2%	9,545	21.0	2.119	4.7
P.T. Casual	11.1%	4,967	21.0	551	2.3
TOTAL	100%	-	-	11,079	18.6

(a) Cost/hour: £16.65 (b) Cost/student/hour: £0.88

(c) Cost/week: £347.5 (d) Cost/student/week: £18.58

CONSUMABLE MATERIALS

24 reams	@	£1.59	=	£38.16
6 reams	@	£12.45	=	£74.70
				£112.86

Cost/ student/hour = 0.6p

TABLE 9.4b

DISTRIBUTION AND CONSUMER TRADES PRINCIPLES

Length of Course	No. of Places	No. of Students	No. of hrs/wk	Student Hrs	Average Class Size	Princ. Lect	Sen. Lect	Lect II	Lect I	PT Casual	PT Ass. Lect.
25	36(UVP)	65	6.75	438.75	12.36	-	-	27.52	4.5	1.5	-

LECTURER COST (1981 rates)

	Lecturer Mix	Salary Average	Teach Hrs. per grade	Salary Average	Teach Hrs. for Course
Princ. Lect	-	-	-	-	-
Sen. Lect	-	-	-	-	-
Lect II	83%	11,655	18.5	9,674	15.3
Lect I	13%	9,545	21.0	1,241	2.7
P.T. Casual	4%	4,967	21.0	199	0.8
TOTAL	100%	-	-	11,114	18.8

(a) Cost/hour: £16.42 (b) Cost/Student/hour: £1.4

(c) Cost/week: £110.9 (c) Cost/Student/week: £8.97

CONSUMABLE MATERIALS

20 reams @ £1.59 = £31.80

Cost/student/hours = 0.3p

CHAPTER 10 : CASE STUDIES OF TRADEC SCHEMES

545. The preceding chapters have selected key features and issues in the operation of the TRADEC system, and commented upon them in the light of the research data. This chapter presents Case Studies of selected schemes within the five fields in which implementation has been achieved. The studies reveal the ways in which the different aspects of operation can combine within individual schemes, and comments on the points of strength and weakness which emerge. The Case Studies were all selected from Colleges experienced in TRADEC implementation. It should be noted, however, that the Commercial and Food Schemes were still in their pilot stages at the time of the research, although all schemes, except Commercial Trades Principles, Stage 2, had already been run at least once.

CASE STUDY 1

PROFILE OF THE SCHEME

546. COLLEGE: 'A'

DEPARTMENT: Engineering

SCHEME: Mechanical Trades Principles

DATE OF INTRODUCTION: 1974

STAGES OPERATING 81/82: 2, 3.

PATTERN OF ATTENDANCE: Day release for one day per week, to College. Some in-company activities associated with project work and assignments, arranged on an ad hoc basis.

Duration: Stage 1 36 weeks) October
Stage 2 36 weeks) to
Stage 3 35 weeks) June

STAFFING: Nine staff were involved in the TRADEC Scheme
The staff team for each stage was:

Stage 1: Engineering: 1 LI, 1 LII, General Studies: 1 LI
Stage 2: Engineering: 2 LI, 1 LII, General Studies: 1 LI
Stage 3: Engineering: 4 LI, 1 LII, General Studies: 1 LI

STEERING COMMITTEE:

The scheme has its own Steering Committee. The Steering Committee had been active in the initial stages but rarely met in later stages. It was considered by the College that the Steering Committee had little function, once the scheme was 'firmly established'. The last meeting had been held more than 18 months ago.

DEVELOPMENT OF THE SCHEME

547. The College had been involved with the TRADEC system since its inception, when representatives of the College had participated in its development through the Committee system. The stimulus for introduction of the scheme initially came from the needs presented by craft students who continued to be sent to the College but who were not following EITB training. Stages 1, 2 and 3 were introduced in successive years. During the period 1974-80 the Course had grown steadily. Its successful introduction was attributed by the Course Tutor and Head of Department to the backing which the scheme had received in terms of resources, and the supportive attitude of the Principal to these types of development. The TRADEC initiative had been successfully introduced and maintained in a context characterised by declining recruitment and therefore declining demand, particularly in the 'higher level' courses.

The clientele had originally come from existing 'user' companies continuing to send students who formerly would have participated in Craft Practice. Recruitment had extended beyond these in subsequent years, but had continued to rely on a 'core' of approximately seven companies. Extension of recruitment activity to the 180 companies in the relevant industries within the College's 'catchment area' had been planned in response to signs of severe reduction in the 'client population' as a result of the recession. However, little activity had materialised in practice, with the result that the Stage 1 scheme attracted only four enrolments in the 1981/82 session. Stage 1, therefore, failed to run for the first time, and the few recruits were placed in the Craft Studies course.

The ITB training scheme organiser had not been involved in supporting recruitment to the scheme on the grounds that the ITB

> 'Would want all the firms to be sending them on ITB off-the-job training schemes',

not recognising, in the Course Tutor's view, that the scheme was receiving learners for whom ITB training was not appropriate to the nature of their job. The low take-up rate by companies approached was attributed largely to the recent decline in the client population. No particular resistance to the scheme itself had been encountered in the approaches to employers.

548. The UVP association was considered to have made an important impact in terms of improved resources directly available to the course. It had little impact in terms of the curriculum, however. The Glass Technology 'pure' UVP scheme, run in previous years, was considered by the Course Tutor to have entailed closer employer cooperation and greater employer commitment, and had carried a more strongly represented and effectively integrated SLS dimension. This latter feature had not been carried over into the TRADEC/UVP scheme.

THE COURSE TEAM

549. There was a change of Course Tutor during the period of the research. The Course Tutor in the academic year 1980/81 (the year of the survey) was in his second year as Course Tutor. His involvement as Course Tutor in the TRADEC scheme had arisen through a policy decision, which allowed LI staff to be given responsibility for courses, with appropriate remission. The Course Tutor had previously been involved in the Glass Technology scheme and on Craft Studies courses. His industrial experience had been gained over a period of six years as a Draughtsman and Works Superintendent and Works Manager in Engineering. He also held a teaching qualification. The Course Tutor undertook all industrial liaison for recruitment purposes, and a proportion of continuing liaison activities in respect of the scheme. He was responsible for course administration and undertook six hours a week teaching and project supervision on the scheme. The other members of the Course Team had a teaching commitment to the scheme of between one and six hours per week, including project supervision, and were granted one hour per week 'unofficial' remission for company liaison over project work. Most of the 'technical' teachers had, formerly, been involved entirely in teaching conventional courses. Two had experience of other Vocational Preparation schemes. The General Studies staff were drawn from a team specialising in servicing Vocational Preparation schemes, including UVP, ABC, etc. (One of five teams in the General Studies Department responsible for servicing different types/levels of course).

THE LEARNERS AND THEIR COMPANIES

550. Learners: The number of learners in the 1981/82 scheme were

Stage 2 : 9

Stage 3 : 11

All Stage 2 learners were in the 17 to 19 age range and all the Stage 3 learners were in the 18 - 20 age range. Their educational level, by previous attainment, was as follows:

No qualifications	3
< 3 CSEs	-
≥ 3 CSEs < 4 'O's	16
≥ 4 'O's	1

In occupation the learners may be grouped, as follows:

10 maintenance fitters
5 production fitters
1 machine operator
1 production trainee
3 turners.

All but the production trainee (at a glass container factory) considered themselves apprentices, and nearly all intended to continue to do City and Guilds subsequently (indeed many regarded it as a four-year course). All except those working for Company 'A' were directly involved in production (but even in the workshops of Company 'A' it was like a "maintenance assembly line").

All those on Stage 2 had previously done Stage 1. All, bar two on Stage 3, had previously done Stages 1 and 2. These two came in at Stage 2; one had been doing City and Guilds Motor Vehicle Studies when he had been made redundant, and MTP was considered more appropriate to his new job in another company; the other had had previously completed a City and Guilds Communications course. (He subsequently lost his apprenticeship, and the right to attend college, when the foundry he worked for went into liquidation, and although he was given a job in the reformed company it was as a crane driver, rather than as a turner).

551. Companies:

Company 'A': central workshops for maintenance and reconditioning of equipment, used in coal-mining, of gearboxes (500+ employees) had three learners on Stage 2 and four on Stage 3. The apprentices have two spells in the training centre (six months) and also move around each section doing maintenance on different types of gearbox; thus, they get a fairly wide range of work in terms of size, complexity, etc., but it is all within the same area. Some of the gearboxes, and other parts which the learners strip down and reassemble during maintenance practical, come from the company so there is a direct link. Progression to City and Guilds in the fourth year is automatic, so the scheme is regarded as effectively a four-year course by this Company.

Company 'B': founders and engineers, suppliers of headgear pulleys, haulages, etc., for the National Coal Board, (150 employees), had two learners on Stage 2, and three on Stage 3. They train only fully-skilled craftsmen, finding this necessary as most of the work involved one-off's, no repetition:

> 'we train them so they can go anywhere as a skilled fitter or turner'

As above, the scheme was seen as, effectively, a four-year course.

All the other companies had only one learner on either Stage 2 or Stage 3.

Company C: small firm which makes packaging equipment and reconditions weighing machines (12 employees). Work tends to be straightforward and rather repetitive.

Company D: medium-size company (150 employees), not involved in engineering, but makes graphite blocking, pulverite, etc. Learner on the course had responsibility for maintenance to plant and boilers (learner got the job through previous experience as a motor mechanic).

Company E: small company (24 employees) which reconditions printing equipment. Learner was helped a great deal in company by an interested older worker. Learner acknowledged his weakness at theory, and would only consider a practical course. He would not, therefore, be continuing to do a City and Guilds Craft course.

Company 'F': foundry which went into liquidation; apprentice turner redeployed as a crane driver on reformation of company.

Company 'G': small company (13 employees) making special nuts and bolts, fastening, etc., for industry. Only a small unit with limited facilities; learner was a machine operator, working on production - received no training at work.

Company H: large company (about 500 employees), makes tin containers and other sheet metal goods. Learner was from maintenance/toolroom area, requiring a general engineering background.

Company I: glass container manufacturer (1,250 employees - in two local works). Learner was a production trainee. (Craftsmen do City and Guilds Craft courses). The Company considers TRADEC to be suitable for glasswork production trainees and engineering workers below EITB craft level). The Company required that the learner should develop skills and knowledge of basic engineering principles and receive a more structured introduction to working life. The learner did not require any particular job-specific skills. The Company is 'training-oriented', and trainees, including the learner in question, go round the factory doing different jobs, spending three months in each department.

Courses these companies would previously have used, if applicable, would be the old City and Guilds Craft Practice,(although some may possibly have been on the Craft Studies course).

THE CURRICULUM

Translation of the structure and content of the published scheme into the daily timetable and week-by-week programme:

552. The day is divided into four components:

Supporting studies	1½ hours
Trade principles	1½ hours
Projects	3 hours
Social and Life Skills	1 hour (1½ hours for Stage 1)

The progress of the scheme has been clearly mapped out. One a week-by-week basis the learners follow the YHAFHE syllabus, devoting between one and four weeks to each unit* in Stage 1.

The details of the syllabus also follow the YHAFHE format very closely. While the theory lessons cover the same ground as detailed under headings "basic concept, supporting studies, group instructional practice and operational outlines", this is divided into two periods. Although these may be notionally called 'craft principles' and 'supporting studies' they do not bear a straightforward relationship with the YHAFHE classification, in that elements from any of the four YHAFHE categories may be taught in either period. However, this does mean that it is very important that the lecturers do coordinate the coverage of content with one another.

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*Introduction (1), 1.1 (4), 1.2 (3), 1.5 (2), 1.6 (2), 1.7 (3), 1.13 (3), 1.3 (3), 1.4 (2), 1.8 (3), 1.11 (1), 1.12 (2), 1.9 (2), 1.10 (3), End Test (1)

553. The syllabus for Stage 2 again follows the YHAFHE formulation quite closely and there is a split for the final ten weeks between those in production and those in services, during which time different units are covered*

For Stage 3, there are two groups (machining Production and Maintenance), for which independent syllabi had been mapped out, again following the YHAFHE guidelines. However, insufficient numbers meant that for only one of the two periods did they receive specialist tuition. Thus, the division between the learners was simply a pragmatic one: everything which could be taught jointly was taught in one 'lesson', and that which could not was taught in the other 'lesson'. This was obviously much easier to do when there was extensive overlap between units**. Then to accommodate this the concept of the integrated day was surrendered. Thus, for example, in one week during the first period both groups would cover accuracy, interchangeability, screwthreads, etc. (common to units 3.3 and 3.2), then they would separate. The production group worked on free cutting materials (from unit 3.1), while the maintenance group worked on Force Ratio and Movement Ratio (from unit 3.24). This meant that for most of the year both groups were studying two units simultaneously. In practical work, the following pattern was adopted in each stage: twenty minutes were allowed for any short projects of assignments which related to the day's classroom activity, (e.g. those activities designated under the heading 'group projects'). Then the remainder of the day would be devoted to either college-devised minor projects (twenty weeks) or the major project, lasting fifteen or sixteen weeks. The students had to complete at least five minor projects (in areas such as turning, milling, shaping, drilling and inspection). The organisation of Stage 3 practical work ran into the same sort of problem as had the classroom activity. That is, the number of students only justified one teacher - but it was difficult for him to coordinate the activities of two groups doing different things in different workshops.

554. Social and Life Skills

There was very little coordination of this element with the rest of the syllabus. The separate session was taught by General Studies staff, who drew on a substantial resource-bank of General Studies topics considered suitable for this type of learner. The choice of topic rested with the individual lecturer, and there appeared to be little overall strategy and no apparent organised progression through the stages. There was no great attempt, in practice, to relate what the learners did in Social and Life Skills either to what was done in the company or in the rest of the scheme, although intentions to improve that relationship were expressed.

One General Studies lecturer summarised the SLS approach like this:

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*2.1 (4), 2.2 (4), 2.3 (2), 2.4 (4), 2.5 (4), 2.6 (5), then either:

Production: 2.7 (3), 2.8 (3), 2.9 (4), End Test (1), or

Services: 2.10 (3), 2.11 (3), 2.12 (4), End Test (1).

**as between 3.3 and 3.20.

> 'the lecturer himself assessed the standard of the lads and then drew on whatever information he thought fit'.

The Department had produced a course outline for Stage 2 (UVP/TRADEC), which set out the main aims and areas to be covered in SLS:

Aims:

> '1. to provide the student with the necessary study skills to complete his course of study in college.
>
> 2. to help the student to develop the social skills necessary to a young worker.
>
> 3. to increase the student's life knowledge to the level that he can cope adequately with the demands of adult life'.

Areas to be covered were:

1. Study skills:

   use of library, letter-writing, form-filling, simple report-writing, graphs, listening skills.

2. The young person as a worker:

   communication in industry, organisation charts, problems at work, trade unions, health and safety, money and work, legislation.

3. The young person as a citizen:

   legal rights, consumer rights, leisure.

4. Self-presentation skills:

   participation in individual and group activities designed to help him to present himself acceptably, to speak confidently, to argue cogently and to cooperate with others in the attainment of goals.

555. However, in practice this operated as a very loose framework, and some of the staff involved did not know of its existence. They were, of course, aware that this type of scheme would necessarily cover areas of this sort. However, one teacher said the rationale 'was to teach English in a relevant way'. A similar situation existed with regard to course content for TRADEC Years 2 and 3. It had been very much left to the individual lecturer to come to some form of agreement with the students as to what should be covered. This laissez-faire approach meant that where the course was taught by a single teacher, he or she could build up a relationship with the learners and have some interesting discussions (although it should be noted that these tended to be regarded as 'an interesting diversion' by the students). The approach tended to break down where a number of teachers were involved with one group. One group of students had four different teachers in five weeks and the result was chaotic, with very little work of any sort being done. Various games were played, (e.g. arranging a series of concerts all over the country for a pop group), which were supposed to improve certain of the

learners' basic skills (how to read a railway timetable, etc., how to plan). However, in order for these activities to be successful both teacher and students must be clear about the purpose - and often this was not conveyed to the students. Another exercise, spread over several weeks, involved the students in a series of tape-recorded interviews with the public about the lay-out of the local bus station.

556. After the initial research visits (and six weeks after the beginning of the scheme, there was a meeting of the General Studies team to discuss the course content for TRADEC 2 and 3, and some of the issues raised above were debated, (in the presence of five students on teaching practice).

The meeting decided that the content of SLS should be as follows:

Year 2: Trade Unions

Industry and unemployment (coping with employment change)
Industry in South Yorkshire
Environment and economy of the region
New Technology.

Year 3: Influence of national and international policies on the worker

Geographical mobility and change
Emigration/working abroad
Energy resources and future needs
Alternative Technology.

It was also emphasised that 'all TRADEC materials should refer back wherever possible to the student in his own phase of work'.

In general, student-centred approaches were seen as most appropriate; the difficulties of maintaining these approaches satisfactorily when a team of more than two members of staff was involved were also noted. This meant that the informal approach was maintained, but that there was more of an outline structure against which to work. The result seemed acceptable to SLS staff and the students. The students were still not convinced of the relevance or usefulness, but they did not display the hostility which SLS had attracted in some other colleges.

557. The idea that SLS could be made relevant to the student's own place of work was doubted, given the relationship between the Engineering and General Studies departments. Indeed, one lecturer thought the lack of liaison was 'because of the degree of hostility of General Studies from the staff in Mechanical Engineering department, who saw General Studies as a waste of time'.*

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* The SLS element on mining courses and on a UVP scheme run for a glass company were partly integrated into the overall scheme.

It is clear that until problems of liaison between departments is seriously confronted, the Social and Life Skills element will clearly be viewed as a marginal adjunct to the 'course proper'.

That this was a problem was recognised as early as 1976, when a review of the existing situation noted:

> 'General Studies is included in the curriculum and as yet has no specific role to play in regard to the course itself. This is an area which will require consultation with General Studies staff when the course has run the full three years'.

The same comment could be made today!.

558. Mode of operation: The scheme was intended to be suitable for a wide range of occupations. Indeed, the college itself expressed the view in 1976, that:

> 'the course has a wider implication than simply being a replacement for the Mechanical Engineering Craft Practice Course. It aims at a population not previously catered for by Further Education Courses, e.g. skilled operators or process operators requiring a knowledge of engineering'.

However, the course has invariably been populated by students who would previously have been on the MECP course. There have been the occasional exceptions, but there has not had to be any great accommodation to differing student requirements, other than the basic two-way split in Stages 2 and 3. (As previously indicated, the separation is for ten weeks during Stage 2 and four practical and one classroom lesson throughout the year during Stage 3).

Thus, it has been possible to view the course in very stable terms, with a set syllabus to be taught each year (indeed several members of staff made the point very strongly that they regarded TRADEC as 'just another course'). This was reinforced insofar as it was expected that many of the lads would to on to do City and Guilds Craft Studies and therefore it was important that a clear, relatively stable 'body of knowledge' be transmitted to each year's students. The link with other courses was also acknowledged in the way the practical exercises and projects were drawn from programmes of 'similar' craft courses. Another influence on this was the availability of equipment (especially, for example, the gear, etc., which the 'maintenance' group of learners could strip down).

559. Overall, then, the structure of the scheme was similar to other courses with regard to presentation (standard academic year), audience (mainly 16-19-year-old apprentices), and syllabus (both practical and theoretical elements clearly set out, and varying little from year to year, or according to company).

560. With regard to the detailed operation of the scheme, there was a fairly substantial bank of information on which the lecturers could draw (e.g., information sheets; part-completed handouts; exercises, etc., many of which were also used on other courses). However, this, coupled with the detailed syllabus, were the only apparent guidelines for staff.

That is, there was no emphasis on any particular teaching method, and it was apparent that each lecturer adopted his 'normal' style. Thus, some adopted 'chalk and talk' methods, with the students copying down notes, while others adopted a far more participative approach with emphasis on questions and probing what happened in the student's own workplace. Either way, what was apparent was that this was not seen as any different from other courses. (Indeed, it was noticeable that in College 'A', in contrast with some other colleges, there was no-one at 'practitioner' level who was really committed to the TRADEC philosophy, and certainly no-one said they would rather teach TRADEC than other craft and technician courses).

561. The time allocated to TRADEC exactly fitted the standard academic year and the standard day. Again, this did allow for continuity for those who sent on to City and Guilds Craft Studies.

However, this did mean that many of the students regarded their course as a four-year course, and for some of the staff this reinforced TRADEC's position in the hierarchy of courses as just below City and Guilds Craft Studies, (particularly when some of the TRADEC learners struggled with some of the 'more advanced' work).

562. Adaptability

The TRADEC system did provide a simple and clear curriculum base. However, in practice it was not particularly adaptable (for a number of reasons given above). The scheme did have the core of three or four large employers who generally give the scheme a degree of stability, which meant that there was not any marked pressure on the scheme to adapt from year to year. Thus the scheme would appear to have met the needs of 'mainstream' employers, and it is an open question as to whether the scheme would have attracted more learners from other backgrounds if it had been more adaptable. (As it is, the college could argue that the type of learner did not require substantial adaptation of the scheme to needs as these were all met adequately by the existing and, by now, standard, approach).

EMPLOYER AND LEARNER INVOLVEMENT

563. Liaison

The amount of liaison between college staff and the companies varied. Contact with some of the larger companies, who were often regular contributors to the scheme, was reasonably frequent (although, after an initial visit to find out exactly what the company does and what they may require, telephone contact may have been sufficient). With some of the smaller companies, however, the College staff seemed to think that 'most of the companies were content to leave it to the college', and liaison was very cursory: talking about general progress or what could be done for a project. This was regarded as sufficient by most of these employers, but some did think 'it wouldn't do any harm to have had the opportunity to get more involved'.

Certainly, there was little liaison over content of the scheme.

564. Triangular relationship in practice:

The overwhelming response from learners, (both in interviews and in questionnaire responses, was that they had not had the opportunity to discuss their own ideas about what they should be learning on the TRADEC schemes, (e.g., in the 1980/81 scheme four out of thirty-five claimed to have had an opportunity - only College had a poorer response).

However, some did feel (twelve out of thirty-five in the 1980/81 scheme) they had had the opportunity to discuss how the course fitted in with their work with company staff.

565. Overall, then, it is quite clear that the course itself was generally regarded as fixed, immutable, and very much a syllabus to be followed in the same way as standard college courses. There was not a three-way relationship: at best there were weak two-way relationships between the parties, and, with the possible exception of the project, 'work' and 'college' were perceived as distinct by each of the parties.

566. Nature and extent of tangible company contributions to scheme:

It was found that:

- most companies were cooperative over supply of materials for the project
- supervision of learner in-company was, where it occurred, usually regarded as completely separate
- with the exception of those involved as industrial assessors, there was little knowledge or understanding of assessment principles or practices among company personnel.

567. Adaptation and alignment to company needs:

Far from tailoring the scheme to specific requirements, college constraints (of learner numbers, etc.,) rendered it difficult even to make the production/maintenance split as satisfactorily as was envisaged when the scheme was constructed. No adaptation/alignment to specific requirements occurred, other than that which was achieved by the project.

568. Employer perceptions of the scheme:

(a) Relevance:

All company staff, with responsibility for the involvement of the learner in TRADEC perceived the course as relevant. Some were seeking just a general engineering background, whereas others were looking for the scheme to be complementary to training designed to produce skilled craftsmen.

(b) The effectiveness of what is taught and how it is taught:

Most company staff felt they did not know enough about the scheme to be able to comment on its content and process, although several thought the practical emphasis was helpful. (One considered that there could be more accent on practical). A common perception of the scheme was that of a basic Mechanical Engineering course, i.e. it was not seen as very different from any other college course.

(c) Strengths/weaknesses identified by employers:

Again, most company personnel felt unable to comment in detail since, as the learners so often went onto City and Guilds, the course was frequently viewed as lasting four to five years. One firm spoke generally of the course as "benefiting apprentices and the company", and interestingly the only company to make a detailed appraisal was the glass manufacturer who had found the course useful for imparting basic skills across a wide range of student ability, and in enabling the 'less able' learners to achieve success.

The company perceptions served to reinforce the view that college-company relationships are seen on almost completely traditional lines.

LEARNER OUTCOMES

569. Only one learner dropped out of the course on being made redundant; all those on Stage 2 intended to proceed to Stage 3 and most of those on Stage 3 intended to go on to do City and Guilds Craft Studies.

Overall, the majority of students felt it was worthwhile to do the course, but they had more reservations and were less likely to view the course as offering significant benefits than were learners in most of the other schemes which were analysed (e.g., from the questionnaire survey of the 1980/81 scheme a sizeable minority felt their needs were taken into account "hardly at all"; had very low ratings on the perceived benefits both with regard to general self-development 'benefits' and 'job-related' benefits; and one-third thought the course was not worthwhile. This pattern was reinforced by interviews with learners in the 1981/82 scheme. Here, there were varying opinions about the effectiveness and usefulness of what was taught in both theory and practical elements, and work and college were seen as separate. It was apparent that the relevance of what the learner did at college to their work needed to be more clearly established. Similarly, the learners were unclear about the status of the course, the dominant view being that the TRADEC certificate was worth little on its own. However, the majority were reasonably happy, bearing in mind their recognition that they had to do an extra two years at college to become fully skilled by this route!

570. The assessments of Stage 2 and 3 learners at the end of the 1981/82 scheme were as follows:

Nine learners successfully completed the scheme in Stage 1 and eleven in Stage 2. Marks achieved ranged from 512 to 813. Marks attained in project work and oral test were uniformily good. The marks in the theory paper were widely variable, ranging from 38 marks out of 200 to 146 in Stage 3.

COMMENT

571. General appraisals by the parties to the scheme:

The dominant view among the staff of the College, learners and personnel representing large employers was that

(a) the scheme was a basic Mechanical Engineering course which offered an alternative route to achieving skilled status,

and

(b) that the course should not be judged on its own, but as part of a four or five year period of training and further education.

For learners from smaller companies and/or doing more limited jobs, there was a mixed response as to whether it met their needs and was relevant, useful, etc. One company enthusiastically embraced the idea of the course as a structured introduction to working life (UVP-type philosophy), but, interestingly, the learner himself thought much of the course irrelevant in this case.

All parties to the scheme agreed that the project was a valuable exercise. This was the only time the three parties came together.

572. General appraisal by the researchers:

The biggest weakness of the scheme would appear to be that there is no-one really committed to the TRADEC philosophy as one which is particularly different, interesting, or special. The net result is that the TRADEC course is seen as 'just another course' and is judged as such. This means that, although liaison is weaker than on many other TRADEC courses with little real discussion over course content, and although learners express doubts about relevance, etc., none of this is even perceived as a particular problem by the parties themselves: it is considered normal.

CASE STUDY 2

PROFILE OF THE SCHEME

573. COLLEGE 'C'

DEPARTMENT: Engineering

SCHEME: Fabrication and Joining Trades Principles

DATE OF INTRODUCTION: 1977

STAGES OPERATING 81/82: 1, 2, 3.

PATTERN OF ATTENDANCE: Day release, one day per week, to College. Four-day residential period in Lindley Lodge during the Spring Term. In-company activities, associated with project work and assignments and arranged on an ad hoc basis, are engaged in by some participants.

STAFFING: Six staff were involved in the scheme.

The staff team for each stage was:

Stage 1: Engineering: 4LI, General Studies: 1LII
Stage 2: Engineering: 5LI, General Studies: 1LII
Stage 3: Engineering: 3LI, General Studies: 1LII

Grade of Course Tutor: LI

STEERING COMMITTEE

Until 1981 a Steering Committee for the course had operated, holding two meetings each year on average. In October, 1981, a system of Steering Committees for 'sectors', rather than 'courses', was introduced. The first meeting under the new system was held in October, 1981.

DEVELOPMENT OF THE SCHEME

574. The College entered the TRADEC system in 1974 with the introduction of Mechanical Trades Principles. The Engineering Department, following its experience with MTP, implemented the pilot scheme for the newly-written Fabrication and Joining Scheme, Stage I, in 1977. Stages 2 and 3 were piloted in successive years.

575. The introduction of the scheme was prompted by the 'gap' left on the phasing out of Craft Practice, in provision for the many small fabrication firms outside the scope of the EITB and not offering off-the-job training.

The initial group of companies participating in the scheme was comprised partly of former users of Craft Practice and partly of new companies.

576. The scheme grew quickly, in terms of number of participants, between 1977 and 1980. The number of participants fell in 1981, within the general trend attributable to lack of new recruitment in the companies.

Recruitment to the scheme was undertaken by building up personal contacts in as many firms as possible over a period of time. The recruitment responsibilities lay with the Course Tutor of the scheme. The initial take-up rate had been low at 5 per cent but had built up gradually as the Department was able to discern which firms were 'promising'. A core of six firms was regularly involved and efforts were made to recruit new firms each year. Small firms which recruited young people every three or four years formed a large part of the 'pool' of participating companies. In 1980/81, 120 firms were approached for recruitment purposes.

577. The strong commitment and support of the Principal and the Head of Department for the development were clearly important factors in the scheme's successful introduction in providing an appropriate 'climate' for the scheme to grow, and making available remission for the substantial industrial liaison activity required. A factor which was considered by the Course Tutor to have impeded the development of the ideas was the desire of some of the potential employers, for whom the schemes would have been appropriate, for a scheme leading to a nationally recognised qualifications

578. The UVP Association:

Stage 1 was run as part of the UVP programme from its second year of operation. The funding associated with the UVP status had been a clear advantage, although the size of the grant to companies did little to provide incentive to companies participating in this scheme, who tended to disregard it.

THE COURSE TEAM

579. The Course Tutor had carried responsibility for the coordination of the scheme since its inception. The Course Tutor role included responsibility for industrial liaison and most aspects of course administration. Sixteen hours per week teaching, including project supervision, was undertaken by the Course Tutor, who also acted as moderator to the Keighley Fabrication and Joining Scheme. The previous and concurrent teaching experience of the Course Tutor lay mainly in City and Guilds Craft Practice and Craft Studies Courses. His previous industrial experience was substantial, and included experience as a Works Manager. He held a Certificate of Education teaching qualification.

THE LEARNERS AND THEIR COMPANIES

580. Learners: The number of learners in the 1981/82 scheme were

Stage 1 : 14

Stage 2 : 20

Stage 3 : 16

Stage 1 learners were in the 16 - 17 age range, with the exception of one 21-year-old; all Stage 1 learners were in the 17 - 20 age range, and all Stage 3 were aged between 18 and 20 years.

Their educational level by previous attainment was as follows:

No qualifications	9
< 3 CSEs	4
> 3 CSEs < 4 'O's	36
> 4 'O's	1

The occupations of learners may be grouped as follows:

2 unemployed
1 work experience (at College)
3 panel-beaters (chassis repairers, etc.)
1 blacksmith
1 trainee refrigeration engineer
7 welders
8 plater/welders
19 sheet-metal workers
5 fabricators
1 maintenance fabricator
1 stainless steel fabricator
1 plater.

The occasional learner was classified as a 'trainee', but the vast majority were regarded as (and considered themselves to be) apprentices.

Stage 1: One of those who started Stage 1 was on Work Experience and he left the company and course when this finished, after three weeks. One learner (21 years old) who was unemployed, also only spent a short time on the course. Three other students started on the Foundation Engineering course, but by December they had been fixed up with jobs and transferred onto the TRADEC course. Two of these were subsequently made redundant in April.

Thus, only 9 students followed the Stage 1 from start to finish.

Stage 2: All 20 students had previously completed Stage 1.

Stage 3: All 16 students had previously completed Stages 1 and 2.

581. Companies:

All but four of the companies had less that 50 employees; many were very small and most were engaged in general fabrication or sheet-metal work. Training was, in the main, informal, i.e., working with a skilled man, or being given small jobs. Exceptions to this are noted below:

Company A: Four employees, general sheet-metal work

Company B: Twenty employees, general sheet-metal work

Company C: Forty employees, transformer tank manufacturers

Company D: Eight employees, blacksmiths, forging and small general fabrication work.

Company E: Eighteen employees, sheet-metal work, installing air conditioning/dust extraction units.

Company F: Sixteen employees, oil suppliers; fuel oil for textiles. They only require any welding or fabrication if they want to manufacture/install extra tanks, pipes, blender, etc., therefore one welder/fabricator is sufficient.

Company G: Sixty to seventy employees, making ducting, especially for heating and ventilation. Most of the work is fairly routine.

Company H: One-hundred-and-ten employees, steel stockholders and construction engineers.

Company I: Twelve employees, fabricators: do mainly plating and machinery.

Company J: Five employees, general sheet-metal work

Company K: Five employees, trench-shoring steelwork for civil engineering.

Company L: Twenty employees, steel fabricators (although they are part of a larger organisation employing over 300).

Company M: Small company, making industrial hoists and cranes.

Company N: Thirty-six employees, constructional engineers (but part of a larger group)

Company O: Small company doing car repairs

Company P: Twelve employees; manufacture and installation of refrigeration systems.

Company Q: Small company; sheet-metal work

Company R: Seven employees; general fabrication work.

Company S: Twenty employees; motor vehicle repairs and overhaul and reconditioning of aircraft ground equipment.

Company T: Eight employees; general fabrication work.

Company U: Ten employees; lifting engineers, who employ two blacksmiths.

Company V: Fourteen employees; maintenance engineering, mix of fabrication and mechanical work.

Company W: Twelve employees; very general engineers, doing repair work for a wide range of industries.

Company X: One-hundred-and-fifty employees, but part of a larger group; garage which specializeds in heavy goods vehicle accident repairers; systematic training programme run by a training division.

Company Y: Two-hundred employees; industrial combustion engineering, (i.g. for glass industry); formalized training with instructors, etc.

Company Z: Fifteen employees; plastics fabricators.

For most of these companies the only course they had used was TRADEC. The majority involved all of their apprentices (usually only one, two or three in number) in the scheme. Several of the larger companies also used City and Guilds Craft courses, and a few asked for a mix of courses, (e.g., in association with MTP). Placement on the particular course was often guided by the College. Many were 'sold' the course by active recruitment by college staff (and in the main these had not previously sent employees to college).

582. The progress of the scheme had been clearly mapped out, with the exception of the SLS element. The syllabus had been substantially revised during 1981 and the structure, operation and content of the scheme differ, although they are still clearly derived, from that published by YHAFHE. However, this is in accordance with the TRADEC principle that 'the structure of the TRADEC system and schemes is designed to allow substantial flexibility in operation, and in actual content'. (Interestingly enough it would appear that those tutors who are most ready to set aside the YHAFHE syllabuses are those who were involved in writing them. Presumably because they are more aware of the underlying principles and also because they recognise that, to some extent at least, the process of selection of topics for inclusion is a rairly arbitrary process).

583. One significant departure from the YHAFHE approach is that the College C scheme does not take a single topic and treat it to the process of 'basic concept; supporting studies; group instructional practice; operational outlines and group projects. Rather, they would appear to decide which practical and classroom-based activities they wish to undertake and then build the scheme around these, bearing in mind the need to encourage a participative mode of learning. Wherever possible 'day visits' are included to ensure the simultaneous study of theory and practice. This means that the instructional practice and operational outlines can usually run more or less in parallel with supporting studies, giving all students a basic theoretical understanding of fabrication, whereas both the specialization and the projects can be taught more independently. This occurs with the projects because the amount of time to reach an acceptable standard in one area may differ greatly from the amount of time it takes to teach any associated theory. The ordering and emphasis here is important - there is an expectation, from most learners and employers, that it is more important to be able to perform certain tasks than necessarily to understand all the associated theory. Whether this is the correct emphasis becomes more problematic for those who offer, in-company, a more comprehensive form of training in practical skills. (These are clearly in the minority and it may be thought that existing City and Guilds Craft courses would offer an alternative here, especially as TRADEC is predicated on the assumption that what is required is a course with greater emphasis on practical skills. However, in some areas there is not a choice between the two!).

The specialization sections have to be taught independently because they involve drawing and construction, plus any special needs, e.g., pattern development, welding, etc.

584. The following examples illustrate the way in which the timetable is organised on a week-to-week basis:

Weeks 13 - 30: Stage 1

Project Work: (weeks 13 - 21) Examination and report on gas- and arc-welding equipment and practice. Production of sample welds and gas, arc and resistance. Production of sample joints using other joining methods. (Weeks 22 - 30) Working on major project.

Specialization period: Continuing with drawing and development work, (with a four-week period relating to their specialization; drawing work associated with e.g., welders, blacksmiths, coachbuilders). While both of the elements outlined above are carrying on more or less independently, a whole series of more discrete topics are being covered in instructional practice and operational outlines, backed up by supporting studies, for example:

> arc welding; soldering and brazing; joints form by screwthreads, rivets and adhesives; washers and gaskets; resistance welding; self-secured joints; common fabrication materials and sections; stiffening by forming; heat treatment; testing and inspection.

585. Social and Life Skills:

There are supposed to be coordination meetings between General Studies and Engineering staffs involved in teaching TRADEC, but in practice General Studies staff appear to teach what they want, (e.g. in Stage 1 several staff were used, with little apparent coordination; also some of the material used was not relevant for this group - one lesson consisted of the practising of dictation note-taking). Similarly, there was no apparent organised progression through stages; what was learned,and when, seemed to be guided by ad hoc decisions. There was a college-devised syllabus for Stage 1 SLS (reference books; note-making; use of library; instructions; safety; profit, etc.,), which does have greater emphasis on study techniques, but the impression gained was that the decisive influence on what was taught was the teacher taking the session. However, on Stage 3 students were offered a series of topics and asked to choose what they would most like to cover, e.g., unemployment benefit/bank accounts, etc. ABC checklists were also beginning to be used.

The integration and efficacy of the SLS component was clearly a matter of concern to the Principal (a TRADEC 'proponent') who had proposed closer team working between the two Departments concerned.

586. Mode of operation:

The principle of suitability for a wide range of occupations,on which the scheme structure is based,appears to have been taken on board in this scheme, which has tried, as far as possible, to incorporate different specializations within fabrication. This again means substantial alteration to the published material, while still remaining within the spirit of TRADEC.

Thus, in Stage 1, there are twenty-four-week specialization periods which allow welders, blacksmiths, coachbuilders, etc., to work on separate lines from the sheet-metal workers.

Specialization increases markedly on Stages 2 and 3, when the different groups follow separate ways for most of the year in both the 'project' and 'specialization' periods. To facilitate this, wherever possible, the specialization periods are double-staffed.

Even within the specializations there is room to accommodate the wishes of employers in greater detail as they can select from, or add to, a range of options.

587. The scheme at DABTAC is, therefore, in this respect, flexible in practice, not just in theory. The staff have also been very successful in conveying this message to employers in such a way that it becomes very difficult for them just to send the lads on the course and then forget about it. The structure of the scheme has met with approval of the majority of employers, and even those with apprentices in minor trades (such as blacksmiths) generally seem to appreciate that while it does not meet their needs fully, it is perhaps as much as can be realistically, and economically, expected in the current climate. The only group which did consider their specialization was not met as fully as it could realistically have been were the 'thin' sheet-metal workers - who did not think so much time should have been spent on 'heavy' work.

The only other significant constraint on flexibility was the nature of college equipment. Here, gas-welding is taught, in preference to greater emphasis on more modern and widespread methods, because of the cost of re-equipping. It could be argued that the underlying principles, etc., are the same but this would seem more of a rationalization than a cogent argument.

588. However, whilst the structure has proved flexible enough to meet the varying demands of different skills groupings within fabrication, in many other respects the TRADEC claims to flexibility remain not proven. This is becuase in practice the scheme has operated as a standard three-year day-release scheme for 16 - 19-year-old 'apprentices' (all are 'apprentices' in the sense of their needing some form of extended skills training). Only very rarely did anyone join the course who was very much older (and these did not complete the course), nor was there, other than exceptionally, any in-company element. The scheme has also followed the standard academic year.

589. This is not to decry the efforts of the College, since they clearly have been successful in providing significant Further Education to some traditional non-participants, and have offered a range of alternatives to some groups who were inadquately provided for in existing schemes. However, given the very small size of many firms in this industry, it does throw a question-mark against the claim that: Stage 1 is a useful basic course suitable for many workers in operator-type

occupations', and that 'Stage 3, alone, may well be a useful programme for an experienced adult worker involved in job change or improvement'.

590. With regard to the detailed methods of the TRADEC scheme, the Course Team did try, wherever possible, to use participative teaching methods, rather than formalized instruction. However, while this approach was consistently followed by those with a thorough understanding of, and sympathy with, the aims of TRADEC, there were some occasions when other staff were required to teach on TRADEC. Some of these either did not fully understand the approach or could not adapt from the familiar didactic approach, and this sometimes created problems.

591. Adaptability:

The TRADEC system tries to provide a simple and clear curriculum base which is adaptable to the circumstances of the client. It has been shown that the College did try to incorporate several quite distinct occupational groupings, although all were still in general trade areas. It was reasonably successful in this, although again this could be very testing for teaching staff who did not have experience in all these areas.

The length of time allocated to the TRADEC course fitted exactly to the standard pattern for courses for engineering apprentices; full day-release for an academic year, starting in September. This had the dual advantage in that it fitted in with employers' (and learners') preconceptions about 'proper' courses, and it allowed continuity for those who were doing a four-year apprenticeship, and intended to move into a City and Guilds Craft course. In 1982 it also meant that some apprentices could take TRADEC 3 and City and Guilds, Part 2, simultaneously.

The college day has been extended to 7.30 p.m. so as to enable them to cover sufficient ground (partly in response to some employers' claims that a standard day was not long enough).

EMPLOYER AND LEARNER INVOLVEMENT

592. Liaison:

The amount of liaison between college staff and the companies was quite extensive. Contact was made not only to discuss general progress, but also over decisions about which specializations to follow, projects, etc. This was particularly impressive, given the large number of companies involved (27). The majority of companies thought liaison was very good and even those few who thought these were not as full as they would, ideally, have preferred acknowledged this was not a question of not having the opportunity, but rather of not having the time to get involved.

There had been initial involvement and liaison over content of scheme and, after the 1980 revision, the companies had the opportunity to specify specialist options and topics from a wide range.

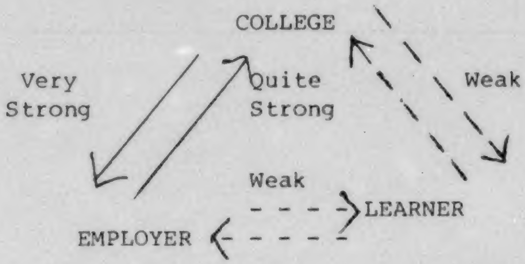
Some employers did also take up the invitation to visit the College and see the scheme in operation.

Given the small size of many of the employers' enterprises, and their supposed traditional reluctance to get involved with the colleges, the achievement seems even more noteworthy. So liaison with employers was as full as could reasonably be expected.

593. The triangular relationship in practice:

While the relationship between employer and college was clearly two-way, the involvement of the learner in discussion of the learning programme was much less substantial, either with the college, or with the company. While there was little discussion at any stage between learners and company staff, on what they should be doing at college, there was a progressive involvement of learners with college staff. Thus, while there was little involvement at Stage 1, by the time the learners reached Stage 3 they were more involved. (It was, however, considered by college staff that, especially in the early stages, the learners did not know enough to make decisions about course content). However, although the overwhelming majority considered the course worthwhile several, especially those on Stage 1, felt their needs and interests were taken into account hardly at all.

Overall, then, the three-way relationship could be represented as:



Thus, while it may be possible to regard course content, etc., as a result of a two-way negotiation, it is clearly not a three-way negotiating process. (Interesting neither of the other parties thought the learners should be more involved, even though the learners themselves often felt that). However, the idea that 'work' and 'College' are completely separate has been eroded.

594. Nature and extent of tangible contributions to scheme:

- the companies were highly cooperative over supply of materials for the project

- in respect of the supervision of the learner in-company, only one or two companies did actually try to coordinate what the learners did in-company with what happened at the College. There was very little in-company coursework, but many more companies considered that the specializations and projects, etc. meant that the college did coordinate well with what they did in the company

- industrial assessors were involved in the scheme and obviously knew assessment system and principles very well. Several other company personnel were aware of the assessment system but many more were not aware of it, often regarding this as a purely internal college matter.

595. Adaption and alignment:

Great efforts are made to align the course to the specific requirements, with companies being given not only broad specializations to choose but also a range of particular topics. The adaptation of the course to their needs was favourably commented upon by many of their companies and even the few who felt that the course did not match their requirements too well usually acknowledged that it was not feasible, given the range of trades covered, to do much more.

596. Employer perceptions of the scheme:

(a) Relevance:

This scheme was invariably considered to be highly relevant. Only two companies expressed any reservations; one felt that the course was too general and would have preferred it to concentrate, solely, on sheet-metal work; the other would have preferred a blacksmithing course but, failing that, this was the next best thing.

(b) The effectiveness of what is taught and how it is taught:

Again, the overall response was very positive, although several felt they did not know enough so as to be able to make an informed judgement. Some felt the course did have a practical emphasis which was appropriate, whereas other felt the course was well balanced between theory and practical.

(c) Strengths/Weaknesses:

Comment was very favourable, especially with regard to flexibility, relevance and liaison. Even those companies which still felt that the liaison could have been fuller, recognised that this was at least a significant step in the right direction (and often made a favourable contrast to 'usual' college/company links). There were, however, some reservations expressed about the value of the Certificate (they would have preferred a nationally-recognised qualification) and that the assessment tended to be rather bland - always complimentary, with 'no constructive negative criticism'. Also some general complaints were registered about the 'Tech' not being aware of industry's needs with regard to production speeds.

597. Overall, while some companies preferred to keep relationships at a distance, most recognised the value of the College's efforts to 'bridge the gap', although it was still very common to feel that the College should come to the company, rather than vice-versa.

LEARNER OUTCOMES:

598. Learner achievement, satisfaction and perception of benefits:

The overwhelming majority considered the scheme to be worthwile. Other attitudes and perceptions of benefits became markedly more positive as the learners progressed through the scheme. The major source of dissatisfaction was the length of the college day (9 am to 7.30 pm), and it was some time before the students became resigned to this. This criticism was not purely negative, as they advanced a number of alternative proposals and also made legitimate points about the negative educational results of such a long day. (Interestingly, the college lengthened the day in response to requests from employers to cover more ground, without considering the views of the learners). The value of learning job-related skills was strongly emphasized, although this was sometimes partly undermined if their work was seen as repetitive, with little change of progression, and/or their employer was perceived as not really being interested. However, the learners invariably felt that the course would be helpful, either in helping them to get a better (more highly skilled) job or just to get another job. (Thus, most of those made redundant during the life-time of the course opted to stay and complete the course if at all possible).

There was no automatic progression to another course. Indeed, if the learner wanted to do City and Guilds subsequently he had to transfer to another college. Nevertheless, many intended to continue in the City and Guilds route, or would have liked to do so if their employers had been willing.

Overall, although the scheme was rarely considered by the learners to be helpful with general 'self-development needs', such as ability to communicate, forming relationships with other people, etc., in a different sense the course was highly successful in terms of personal development. The learners perceived themselves as having learned valuable and relevant skills, and their attitudes towards further education were positively influenced.

599. Assessment:

In Stage 1, eleven learners completed satisfactorily. One participant did not complete the coursework or have the required level of attendance. The range of marks attained was 429 - 780. In Stage 2, seventeen learners completed successfully, achieving marks in the range of 500 - 839. The results on the theory paper were poor, with ten learners achieving less than 50 per cent. In Stage 3, sixteen learners completed successfully, in the marks range 540 - 750. Again, seven shared less than 50 per cent on the theory paper.

COMMENT:

600. General appraisals of strengths and weaknesses by parties to scheme:

Industrial liaison and attempts 'to bridge the gap' between education and industry was seen as a great strength by college staff and most of the employers. From a college viewpoint a small number of employers were seen as being unresponsive, and even among some of those who were otherwise co-operative there was a feeling that 'they have got their job to do, and we have got ours, so let us get on with it'. College/company links were considered as good as could be reasonably expected. However, the learners often felt that they could have been more involved and that greater notice could have been taken of their needs and interests by both college and company staff.

All three groups considered the course was relevant and useful, and led to the development of job-related skills. By way of contrast, none of the groups were very enthusiastic about the Social and Life Skills elements which were considered quite distinct from the rest of the course.

601. General appraisal by the researchers:

There was a genuine commitment to the TRADEC philosophy with regard to flexibility, industrial liaison and teaching methods. This enthusiasm was conveyed to the employers and, often after a period of initial scepticism, to the learners themselves. To involve so many companies of the type and size associated with this scheme shows what can be achieved if a course is actively, and consistently, 'sold'. Even after this initial 'selling' considerable effort is put in to make sure the course continued to be responsive to local needs.

CASE STUDY 3

PROFILE OF THE SCHEME

602. COLLEGE 'F'

DEPARTMENT: Commerce

SCHEME: Distribution and Consumer Trades Principles

DATE OF INTRODUCTION: 1978

STAGES OPERATING 1981/82: 1, 2, 3.

PATTERN OF ATTENDANCE: The pattern of attendance for the standard TRADEC scheme is day release, one day per week to college, one week residential period; company-based activities limited to occasional project activities arranged on an ad hoc basis, in most cases. One company provided a full company-based element in association with the college component.

The department also regularly contributd to 13-week 'short courses' for unemployed young people, comprising:

4 weeks in college (usually in two blocks)
2 weeks at a training centre
7 weeks work experience.

TRADEC Stage 1 is used as the basis for the college component, with additional contact elements in areas of basic skills.

STAFFING: Stage 1)
Stage 2) 2LII, 1 LI and two part-time lecturers.
Stage 3)

STEERING COMMITTEE

The Regional Steering Committee for Distribution and Consumer Trades Principles, convened under the former YHAFHE, was considered effectively to be the Steering Committee. No local (college) Steering Committee existed for this scheme.

DEVELOPMENT OF THE SCHEME

603. In 1975 the Department had introduced a college-devised short course in Distribution. The TRADEC system was subsequently adopted for the same client group. The introduction of the scheme had been prompted, by identification of a large 'gap' in provision, for those employees in the industry who 'would not make suitable BEC students'. There was also a need for progression for those students who did not obtain credits in BEC General and were therefore unable to proceed to BEC National Certificate courses. The scheme met an immediate demand from employers. The Department already had good established industrial links. Other important factors which had supported the successful introduction of the scheme were the parts played by the Sheffield District Training Association, by a large Cooperative Society, which had acted as two major liaison and recruitment sources and had supported the 'short course' development. DITB had also made a substantial and important contribution to the successful introduction and development of the scheme.

604. Target companies were initially those with which the college had a long-standing association. 'In-fill' recruitment was undertaken by DITB. Following the break in the relationship between DITB UVP/TRADEC, the DITB has continued effectively to support recruitment in connection with the system of grants for a variety of awards, which include TRADEC.

The demand so generated rendered intensive individual visiting, specifically for recruitment purposes, unnecessary. Liaison with the major stores and chains was automatically undertaken on a continuing basis by the Department. Other factors which seemed important in the high demand and take-up rate among employers could be identified, including - grants; greater flexibility in mode of attendance; greater relevance of content/approach for the 'sales assistant' level of worker; opportunity for progression from the 13-week short course; problems encountered by employers in adjusting to the BEC system.

605. Some employer drop-out had occurred during the period of operation. Much of this had been attributable to the effects of recession. Some drop-out was accompanied by reversion to BEC, because TRADEC had not 'stretched' learners sufficiently. Some dissatisfaction had also been perceived, in the early stages, with the content overload in the syllabus. The introduction of the half-day college/half-day YMCA

model, under the DITB/UVP association, had also caused some fall away (having been considered a waste of time by many learners).

The UVP association, however, was considered to have brought clear benefits in developing the impetus for the work. In particular, the UVP funding had enabled the scheme to be extended from the original mode of half-day per week in college (which had been found to be inadequate), to a full day in college.

THE COURSE TEAM

606. The Course Team had been responsible for coordination of the scheme from its inception. The Course Tutor role carried responsibility for the industrial liaison and all course planning and administration, including assessment.

The Course Tutor undertook 95 per cent of liaison visits and had teaching commitments of nineteen hours per week to TRADEC.

Other members of the Course Team had teaching commitments of between four and fourteen hours per week.

THE LEARNERS AND THEIR COMPANIES

607. Learners: The number of learners in the 1981/82 scheme were

Stages 1 and 2 : 29 learners*

Stage 3 : 14 learners **

The learners were all in the 16 - 19 age range :

		Stages 1 and 2	Stage 3
Age:	16	14	1
	17	10	7
	18	1	5
	19	3	1

Their educational level, by past attainment in general (academic) examinations, was:

No qualifications:		1	1
3 CSE's		-	-
3 CSE'S	4'O's	22	2
4 'O's	1 'A'	3	6
	2 'A's	-	1
(Not known	2)		

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*There were three groups in operation, of which only two were in the case study.

**There were two Stage 3 groups, one of which was case studied.

The learners' occupations can be groupd, as follows:

All those on Stages 1 and 2 were sales assistants (three of whom had additional responsibilities in office, administration and warehouse). The Stage 3 scheme included 13 sales trainees and a warehouse assistant.

All those on Stage 3 had previously completed Stage 2. For Stage 1 and 2 group, three joined group at Stage 2. (Two of these were eligible for a DITB grant and so were going to do Stage 2, followed by Stage 1, as they had missed the September start. The other learner had previously done Stage 1 and the company decided they would like him to re-join. Two left after completing Stage 1; one did not want to continue, while the other was promoted and could no longer get time off.

Stage 3 was split into two parts separated by the summer, and five learners did not re-start the course after the break. (One left the company, one asked if he could come off the course, one was promoted and decided not to continue, one decided to do a BEC National Course instead, and one was withdrawn by the company because he felt he was not getting anywhere). Thus, the five had all completed a full academic year (Stage 2, plus one-half of Stage 3).*

608. Companies:**

Company A: Medium-size builders' merchants, part of a small chain

Company B: Large variety chain store (280 employees in store).

Company C: Large department store, itself part of a large group.

Company D: Small wholesale office suppliers (30 employees).

Company E: Cosmetic retailer, small shop but part of a large chain, which is itself part of a larger group.

Company F: Small shoe shop (27 employees), but part of a large chain.

Company G: Electrical retailer, small shop (23 employees).

Company H: Plastic goods manufacturer (medium-size company): learner is sales and office assistant.

Company I: Large department store (220 employees), itself part of a larger group.

Company J: Menswear shop, (6 employees), small shop but part of a large chain - part of same large group as Company E.

Company K: Retail chemists, small shop, (5 employees) part of a small chain (300 employees in total)

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*Throughout the learners comments with regard to Stage 3 refer only to those nine who continued with the course in September (hence this may give a more favourable picture than if all fourteen had been interviewed).

** A 'small shop' here means a small city-centre shop (usually 5 - 30 employees), not in the small corner shop. This contrasts with the department stores who employ hundreds in a single store.

Company L: Retail chemists, small shops, part of a small chain. Learners in different shops of varying size (5 - 30 employees)

Company M: Small retail fashion company (70 employees)

Company N: Menswear shop, small shop, part of a small chain.

Company O: Large department store, itself part of a large group

Company P: Clothing multiple, small shop but part of a large chain.

Company Q: Local co-operative society: retail distribution (950 employees). Besides sending some of own employees on course, they co-operate with the College to run the short industrial courses for the unemployed, using the content of TRADEC 1 as the college element).

Company R: Large department store, itself part of a larger chain.

All the above, with two exceptions, involved one or two employees in the schemes in 1981/82. The two exceptions were Companies B and L, which involved fourteen and eight learners, respectively.

None of the employers had any special requirements. In the main, the scheme was viewed as a general background/introduction to distribution, especially as all the larger companies had their own training programmes. The learners and their companies could be divided into three groups.

(1) those who started the course while on work experience and wanted to continue

(2) those companies who were participating because of the DITB grants, for which TRADEC constituted the appropriate course.

(3) those companies who insisted young recruits did day release, although whether this was TRADEC or BEC depended on suitability for one scheme or the other.

CURRICULUM

609. The day is divided into three sections:

'Personal Development'	one-and-a-half hours
Units	one-and-a-half hours
Units (different from above) and project work	three hours

The division of 'Units' sessions above simply reflects that the classes are taught by two different lecturers, the second of whom also has responsibility for project work. There is no particular significance in which units are taken in which section.

The content of the scheme is covered on a unit basis, with the amount of time being devoted to project work stepped up towards the end of the scheme. Each lecturer will be allocated a number of units which he will be expected to cover during his 'slot'. Thus, in Stage 1, lecturer 'A' may take three units (money; security; health; hygiene and safety), while lecturer 'B' takes four units (relationships at work; selling; stock; aspects of distribution), with the remaining unit on communications being subsumed into the personal development sessions. A similar pattern applies to Stages 2 and 3.

This way of organising the syllabus does mean that each lecturer has the freedom to organise, structure and teach the units at whatever pace and in whatever way he likes. This reduces the need for co-ordination in that each lecturer can teach his section independently of the others.

610. The mode of operation

On the YHAFHE model it is intended that all trades should take the same Stages 1 and 2. This occurs at Richmond. Indeed, the stages are offered within one academic year with just a short break between the two courses. It was originally proposed by the DCTP Working Party that 'Stage 3 of the course will serve as an introduction to management for first-line supervisors or junior managers'. Also Stage 3 was intended to be applicable to the following occupational zones: 'manufacture and distribution; wholesaling and distribution; retailing perishables; retailing non-perishables; retailing services'. This may imply that the course would allow separate specializations, etc., but in practice it is the same course, with examples used in discussion perhaps reflecting the learners different backgrounds - as may the projects. Similarly, the Stage 3 scheme, in practice, picks up mainly sales assistants, not supervisors. They may go on to become supervisors, but they are not sent on the course because the company intends that they will become supervisors, as the decisions to send them on the course and whether to promote them are entirely separate. This means that for the learners, Stage 3 may be useful in the future, rather than being relevant to the job they are doing now. As such, it is clearly more of a traditional college course trying to put over a 'body of knowledge', than one able to exploit the 'working situation as a vehicle for learning'.

611. With regard to the detailed method of the scheme, this decision rested with the individual lecturers, and a variety of teaching methods were used. Consider the following examples:

i. Lecturer 'A' doing 'Market Research' with a group of Stage 3 students.

This consisted of the lecturer asking a series of questions. Then, after the students had made their contributions and the lecturer elaborated a little, the students were expected to copy the 'right' answers from an overhead-projector slide. Thus, although there was an element of participation, the main method was clearly didactic and the students had had to copy down over 50 lines on market research. This, then, constituted their notes on this topic.

There was no attempt to use the 'basic concept-supporting studies group instructional projects' formula and, indeed, this was the basis of this lecturer's approach to any course. Needless to say, this lecturer did not think very highly of the TRADEC philosophy and thought the course itself lacked credibility. The learners' knowledge about market research may have been reinforced to some degree by the general business games played in other lessons, but not in any other systematic manner.

ii. Lecturer 'B' doing 'Security' with a group of Stage 1 learners made a genuine attempt to relate information back to the jobs they do , ('when you go back to your company, see if .....'). The sessions were highly participative and the lecturer really worked at getting students to think through the issues. TRADEC was seen as a reasonably simple course, where you are attempting to give a good grounding. Hence, there was no great mass of information to be taught, just the need to get the basics across. Therefore, there was plenty of time and scope to look at the issues in several different ways. Thus, this lecturer was following the basic TRADEC philosophy, even if he was not using the model, as such.

612. While the topics were not integrated on a daily basis, during any one particular day the students were likely to be faced by a range of methods. Thus, even if some lessons are quite close to formal lecturers, the scheme as a whole (even excluding personal development) makes quite extensive use of video, business games and group exercises. The personal development sessions made use of video in a variety of ways: students have to operate as a newsreader, stand-up comic, etc., as well as performing mock interviews and giving other presentations. Their performance can then be analysed by themselves and/or others.

613. The time allocated to the various stages was as follows:

Stage 1	12 days and 1 week residential
Stage 2	13 days
Stage 3	26 days

The timing of the scheme was flexible in that Stage 3 could start in either February or September, and Stage 1 could be run on a block basis at any convenient time of the year. Usually, however, Stage 1 started at the beginning of the academic year. This is an opportune time in that it is a likely time for new recruits to have just started, and also because it remains the recognised start of the college year.

614 Adaptability:

It was hoped that TRADEC would be adaptable to the circumstances of the clients. However, the scheme in practice was fairly standard and appeared to do little different for those in roles other than straightforward retailing (eg: wholesalers and warehouses), even where the nature of the work could be completely different. The project afforded only a very limited opportunity for alignment, here.

615. Liaison:

The major stores all had training departments, and the relationship between these and the College's Business Studies Department had traditionally always been good, even before the advent of TRADEC. These companies were also likely to have students on other courses, so there was continuing contact in these cases.

However, for some of those companies which had a chain of shops, a Training , or Personnel Officer, arranged for the learners to go on the course but these, in particular, sometimes knew little or anything about the course.

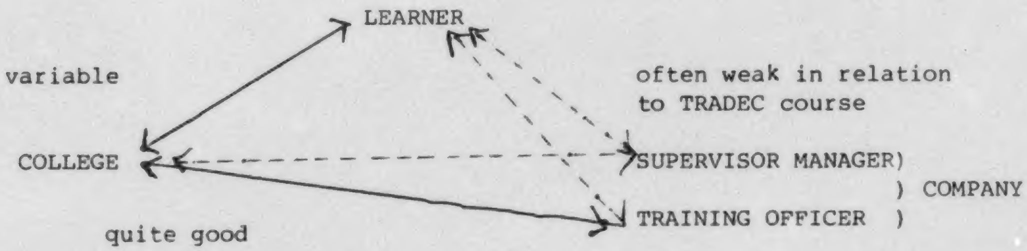
Finally, the liaison with some of the smaller outfits was very varied: some felt they had not been involved at all, while others were satisfied.

Thus, liaison between the College staff and personnel of the participating companies was fairly good at Training Officer level, but much patchier with those directly responsible for the learners in company. This 'gap' was aggravated by the fact that most learners considered they had not had any opportunity to discuss the course with company staff. (Often they had little contact with the Training Officer, except for being told they were going on the course, usually at the initial interview).

There were differences of opinion among the learners as to whether they had an opportunity to discuss the content of the course, etc., with College staff. (About one-third considered that they did have this opportunity).

616. Triangular relationship in reality:

There were wide differences in the experience of learners and companies, but the dominant pattern seemed to be one of fragmented relationships - which could be represented, as follows:



Only in exceptional circumstances would there be a genuine three-way negotiating process. An enthusiastic Training Officer, committed to the TRADEC philosophy, is obviously a necessary condition to forming this type of relationship, but this, in itself, is insufficient if the local supervisor/manager is uninterested or hostile.

617. Nature of tangible contributions by employers to the scheme:

There was little employer involvement in the schemes. The majority of learners did no TRADEC work in-company and, even if there were questions about the company or its procedures these were often found out by the learner on their own, rather than through consultation with company staff. However, many employers ran their own training sessions, which covered some of the same elements as dealt with at college, (security, order-processing, etc.). One or two of the larger stores also had a more comprehensive training programme, which involved people being moved round different departments and/or jobs, but, again, this operated independently of the TRADEC scheme, as the training applied to all young persons in certain categories irrespective of which course they were on.

618. Supervision:

It was unusual for the learner to have a supervisor who took an active interest in what the learner did at college and tried to give them any special help. There were some supervisors who did this, but the majority saw what happened at college as completely separate from what happened in the company.

619. Adaptation/alignment:

No special adaptation or alignment was required.

620. Employer perceptions of scheme:

(a) Relevance:

Often the scheme was perceived in a general way (eg: 'helps open them out'; 'they can find out whether they are interested in distribution'; 'helps communication and confidence'), but generally viewed as helpful to the employees, who would then be more interested, useful, etc., to the company. Training in company procedures and directly relevant job-skills were seen as the province of company training. Thus, company personnel saw the scheme (Stages 1 and 2) essentially as a background to working in the Distribution Trade. Stage 3 was viewed as a progression for the individual learner, rather than as a course for supervisors. Two companies expressed disappointment that the course was not made more relevant to their training requirements, but several companies did seem to think the scheme offered greater relevance than some of the other courses available, (eg: BEC General).

(b) Effectiveness of what is taught and how it is taught:

Following on from the above, several employers felt that the more pragmatic approach of TRADEC, with its emphasis on improving communications, was more suited to many of these learners than the more academic (and distant) approach of BEC. This was particularly true where the learners were required to go to college, but were not necessarily enthusiastic.

There was not much specific comment about the effectiveness of what is taught and how it is taught, as this was seen as primarily the concern of the college. This applied particularly to those companies which saw the course as a means of improving their employees' general education.

(c) Benefits:

The following benefits were seen as accruing to the employee, which then benefited the company - better understanding of the world of work; more confident, self-assured employees; helped employee to mature, etc. This represents the dominant view, but some employers felt the employees benefited very little from the course. A third group considered the main benefit or attraction of the course was the DITB grant!

LEARNER OUTCOMES

621. Learner achievement, satisfaction and perceptions of benefits:

(a) Those on Stages 1 and 2:

There was a very mixed response. A few learners thought that the scheme was not worthwhile; a few more thought that it was, but the dominant response was that they were not really interested.

This same mixed response was applicable to most aspects of the scheme. The dominant view was that it was not very relevant to their work, but that certain parts of the course (eg: security) may be useful. Some, however, did like the course even if they felt it was not particularly relevant. Others felt the course had improved their self-confidence, or helped them handle customers. Despite their reservations about other aspects of the scheme, many felt it could be useful to them if they were seeking another job. Only a minority wanted to continue on to Stage 3.

The majority considered their companies were not really interested in how they did at college, and the view was often expressed that they would rather be at work than at college. One group in particular (which, with late additions, numbered 24) also felt the course, itself, was 'not sufficiently explained - we just copy off the board - we don't know what it is about'.

Overall, then, the course was not perceived to be a success by most of these learners.

622. Those on Stage 3 (i.e., the nine who continued with the second part of this stage):

(b) This was viewed in much more positive terms by the learners (but note, eight out of nine came from one company - and both companies were known as enthusiastic supporters of TRADEC). The majority of these had previously been on a BEC course, which they didn't like, and had then done TRADEC 2, which was much more favourably received. TRADEC 3 was seen as being more involved with job-related skills, although these were skills which would be required in supervisory or management positions and, as such, were not directly relevant at the present time.

This group saw the TRADEC courses as being beneficial in a whole range of ways, by contrast with the Stage 1 and 2 groups, which saw benefits only in terms of obtaining a qualification, and improving confidence and ability to communicate. Several expressed an interest in continuing their Further Education, if possible, for example, on a NEBS course. Overall, the contrast between the groups could hardly be more marked. One group (those on Stage 3) perceived the TRADEC courses as clearly worthwhile, interesting, and were keen to do well. The other (those on Stages 1 and 2) was, in the main, disinterested and saw the course as irrelevant to work. Its overall usefullness was judged to be marginal.

623. Assessments:

Eight learners completed the Stage 3 Case Study scheme successfully, and twenty-five the Stage 1 to 2 scheme. The marks achieved ranged from 544 - 751. Marks achieved on the theory paper were poor in one group. (The apportionment of marks was changed for Stage 3 learners to a total of 300 marks attainable on the Coursework component, incorporating practical work projects, 300 marks on the theory paper and 250 on the written paper).

COMMENT

624. General appraisal of the schemes' strengths and weaknesses by parties to it:

Most employees were reluctant to make a general appraisal - perhaps because they regarded the scheme primarily as a means of allowing learners to continue their education. Of those who did comment, several mentioned that the scheme was open to all and that it did improve learners' self-confidence, while others did not seem to know enough about the scheme to form a judgement.

The learners divided into two distinct camps. Those who were very positive about the course, seeing it as useful to them in their job, interesting and improving their self-confidence and ability to communicate with others. However, the larger group were rather apathetic and disinterested, not openly hostile but seeing little of value in the course.

College staff felt the scheme could operate well (as it did with Stage 3), but that it was imposing increasingly heavy demands, in view of the number and size of groups, and that it was very difficult to use the methods which had been successful with small groups, with the much larger groups now involved, especially if these were not really bothered whether they came to college, or not.

625. General appraisal of strengths and weaknesses by researchers:

Where students were interested and willing to learn, the scheme worked fairly well, particularly in improving learners' confidence and ability to communicate. However, the course was not very successful in actively involving those who were not initially enthusiastic. There seemed to be a number of reasons for this, but the main one seemed to be that it was often informally communicated to learners in their companies that college was not important. This often even applied to those companies that stipulated from the outset that young employees had to attend college. From this it would appear that liaison solely with Training Officers is insufficient to generate a real commitment to the scheme from the learners and their supervisors. Thus, although liaison is better than that which exists in many courses, a lot more effort would have to be put in to ensure the active cooperation of all interested parties. (It is, of course, unrealistic to expect college staff to bring about the necessary attitude changes on their own. It is bound to be a long, slow, process.)

CASE STUDY 4

PROFILE OF THE SCHEME

626. COLLEGE 'G'

DEPARTMENT: Business and Secretarial Studies

SCHEME: Commercial Trades Principles

DATE OF INTRODUCTION: 1980

STAGES OPERATING 1981/82: 1, 2.

PATTERN OF ATTENDANCE/DURATION OF SCHEME: Day release of one day per week (9.30am - 4pm) to College. Company-based activities associated with project work and assignments arranged on an ad hoc basis. Occasional release from College back to the company during the project session to undertake company-based activities, in cases where another time is set aside for this by the company.

STAFFING: Three staff were involved, as follows:

Stage 1: 1LII, 1 LI Business Studies Department;
1 LII General Studies.

Stage 2: 1 LII, 1 LI Business Studies Department;
1 LII General Studies

Grade of Course Tutor: LII.

STEERING COMMITTEE:

A Steering Committee for all TRADEC schemes operating in the College was established in 1980. The Head of Department represented TRADEC on these Committees. It was considered that the Committee had 'made little impact' on the way in which the scheme was operated.

DEVELOPMENT OF THE SCHEME

627. College 'G' had been involved in the TRADEC development from its earliest stages. The College had piloted the MTP scheme in 1974 and subsequently introduced FJTP in 1977. The Engineering schemes had, between them, involved more than 100 learners each year once established. This was the largest single throughput in the TRADEC Engineering Zone in the region.

The stimulus for development of Commercial Trades Principles arose from existing TRADEC work and need/potential demand had been identified through experience of MTP and FJTP. The College was represented in the CTP Writing Group on its establishment in 1978.

628. In the first year of operation the Stage 1 scheme was run over two terms as the first pilot for Commercial Trades Principles. The scheme was extended to run over the full academic year in 1981/82. The first pilot of Stage 2 was offered in 1981/82.

Recruitment to the scheme had originally centred on contacts with twenty to thirty companies and with the local Training Associations. Direct recruitment to the scheme from companies had decreased as recruitment to the companies fell with the recession. In 1981/82 recruitment to the scheme was undertaken largely through the Careers Office, resulting in a high proportion of WEEPs learners.

629. The Course Team:

The Course Tutor had expereince of teaching in a range of Vocational Preparation courses. She had industrial experience and held a teaching qualification. The second full-time lecturer from Business Studies had experience of teaching in BEC General and National Courses. She had experience in personnel and Works Management. The General Studies lecturer serviced Craft, MTP and BEC/TEC Courses.

Industrial liaison activities, course planning, teaching and project supervision and assessment were shared between the Course Tutor and another full-time lecturer of the Department, recruited to the TRADEC scheme on entering the College on completion of teacher training.

The Course Tutor had experience of teaching in a range of Vocational Preparation courses. She had industrial experience and held a teaching qualification. The second full-time lecturer from Business Studies had experience of teaching. The General Studies lecturer serviced.

THE LEARNERS AND THEIR COMPANIES

630. Learners: The number of learners were:

Stage 1: 13) these numbers include one learner who was
)
Stage 2: 14) following both stages simultaneously.

All were in the 16 - 19 age range, as shown below:

Age	Stage 1	Stage 2
16	5	-
17	5	8
18	1	5
19	2	1

In educational qualifications, all but one fitted into category of ' 3 CSE's, 4 'O's; the other learner held 5 'O' Levels.

The group of learners comprised one quality control technician, six unemployed, and the rest were junior clerical (mainly on general office duties, but four were typists) - of these, seven were on work experience. This meant that only 13 out of 26 were in permanent employment (and several of these had been, initially, on work experience schemes). Three of those on Stage 2 had previously completed Stage 1.

631. Companies:

Only those companies currently involved in the scheme were approached[*].

The learners on work experience were drawn from:

Company A: Large tools manufacturer, a major contributor to the Mechanical Trades Principles Scheme, took many learners on work experience in both Engineering and Clerical areas. In the latter area they had kept one learner on and encouraged her to continue with the College if she wanted.

Company B: The College, itself, had one learner on work experience.

Company C: Small church administrative body (10 employees).

Company D: Small shop (but the impetus to come on this course came from the learner herself).

Company E: Professional Football Club (100 employees). Initiative to do Commercial Trades Principles came from learner, although football club sends its apprentice players on a UVP-type course at the College.

The learners with permanent jobs were drawn from:

Company F: Very large steel company, split into separate operating divisions (each with thousands of employees), two of which send a learner on the course. It is Company policy that all trainees (i.e. those under 20) have the right to day-release if they want it. Thus, the impetus comes from the learner and the scheme is seen as meeting the individual's needs (and fulfilling the Company's general responsibility) rather than being useful to the Company, as such.

Company G: Small company, though part of a larger group, engaged in on-shore oil reclamation and refinery services. Learner wished to do day-release; in fact, left the Company to work elsewhere just before the end of the course.

Company H: Small computer services company. Initially, the learner did Stage 1 while on work experience with Company A. Asked new employer if she could continue and they agreed.

Company I: Engineering company. Learner was initially on work experience and doing Stage 1; when she was made permanent she asked if she could continue, and the Company agreed.

Company J: Agricultural Engineers: Engineering company (350 employees) but part of a group of locally-based companies. Contributor to engineering-based TRADEC courses and a firm believer in TRADEC philosophy. However, the learner on the Commercial Scheme was made redundant part-way through Stage 2.

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[*] Learners from two different companies dropped out: one after about two weeks, and the other after about five weeks.

Company K: Large special steel-makers (3,500 employees). Company policy that young people should have the opportunity for day release. The learner was initially taken on as an apprentice turner. After six months he was found to be unsuitable and was transferred to a job in a works office. (So the learner started on TEC 1, then did BEC General, could not go on to BEC National, so was placed on TRADEC).

Company L: Large steel company (1,500 employees). Company policy to allow young people to have day-release. TRADEC seen as suitable for the academically less able.

Company M: Small company (35 employees): Optical prescription laboratory. Company believes young employees should have the right to day-release.

Special requirements:

None of the companies gave any special requirements. Indeed, the impetus to go on day-release invariably came from the learner (either from those who were doing, or had completed work experience, or from those working for companies which allowed any young person to go on day release). Thus, the learners usually obtained the right to do day-release at College, rather than to do the TRADEC scheme, specifically. So all the larger employers used a wide variety of courses (the most popular in the Commercial area being BEC), and as a result they saw the criterion for entry in terms of educational qualifications, rather than their particular requirements. In other words, they saw TRADEC as suitable for the academically less able. Some of the smaller companies had only been involved in TRADEC but, again, this was more likely to reflect the above reasons than choice of the TRADEC course on its own merits.

THE CURRICULUM

632. The day was divided into two sessions: during one session the theoretical developments (including integrated Social and Life Skills) are handled, and in the other, practical project individual work was undertaken.

The basic material outlined in the syllabi was covered but for a variety of reasons the exercises associated with them may not have been appropriate. For example, there were varying degrees of familiarity with offices, office machinery and office practice in both a practical and theoretical sense. Another major constraint, the operation of the course was the availability of resources. For example, the learners were seldom able to use the business activities room, and many of the suggestions under 'operational outlines' had been predicated on the assumption that the equipment it held would be available for use and demonstration. Following the material and underlying ideas of the syllabus was no great problem, as the College had been heavily involved in the writing of Stages 1 and 2, and the College had been used as a pilot. For reasons already given, it was sometimes difficult to give either the intended operational outlines or group projects, but nevertheless, the 'spirit' of the TRADEC philosophy was being adhered to and the pragmatic response to an audience, other than that for which the course was originally intended, certainly fitted in with the stated aim of flexibility of provision. There was an additional element incorporated into the course involving the provision of a major block of typing practice, which lengthened the original scheme to run for a full academic year. (However, pressure on limited resources, e.g., having to share typewriting rooms, again, meant that the students did not always get as much out of this as was intended)

633. Social and Life Skills:

The teaching of this was co-ordinated with the rest of the syllabus. For at least some of one session the class was doubled-staffed to help achieve the intended overlap and integration. The Social and Life Skills element is also seen as fairly flexible. This is important because of the nature of the population - besides those on Work Experience, the scheme also had a number of unemployed learners. Both of these groups were also likely to be doing (or had done) other courses. Also, people were leaving and joining the course at different times in the year. All this meant that there was a premium on flexibility to meet individual needs. Thus, topics like unemployment, technological change, local history, etc., could help contribute to a wider understanding of the students' current circumstances. Given the balance of the student population, this was an understandable emphasis. (It was generally well-received, even by those who did have a permanent job, although they said it was not relevant to their work - its value was seen in its contribution towards their own personal development).

634. Mode of operation:

All students followed the same broad path. There was not the same emphasis on 'specializations' as that met in some FJTP schemes, for instance. Indeed, in view of the numbers without jobs, the whole orientation of Stage 1 was to give learners a very general introduction to Cpmmercial practice. Similarly, Stage 2 was also targeted at junior clerical staff, but this time with the aim of building on their existing knowledge. Only a minority had actually done Stage 1 CTP, but quite a few had done BEC General but had not done well enough to proceed to BEC National. The learners were also much more likely to have a permanent job, and hence be more able to relate what they learned to the environment of their company.

635. With regard to the detailed method of the scheme, the Course Team did try, wherever possible, to use participative teaching methods rather than formalized instruction. However, as previously mentioned, they were sometimes hampered by not having access to facilities, or being merged with other groups for typing practice. However, several learners contrasted the informal approach of CTP with the formality of some of the other courses they were taking. All of the Course Team were in sympathy with the aims of TRADEC and the learners themselves perceived the course as worthwhile,but often with regard to general personal development, rather than the gaining of job-specific skills.

The length of time allocated to the TRADEC scheme fitted the standard academic year, with full day-release (9 or 9.30am to 4pm) from late September to June.

636. Adaptability:

The course proved adaptable to the needs and requirements of various groups of students (unemployed; work experience; those also doing other courses; those who could not attend a full year, etc.), but in occupational terms they were dealing with a very limited range.

EMPLOYER AND LEARNER INVOLVEMENT

637. Liaison:

There was regular liaison between college staff and the companies in the sense that there was always at least one meeting per year. However, some of the employers saw the course as primarily fulfilling employee, rather than employer, needs and did not get very involved after the initial decision about placement. Also, some of the larger companies were only involved at Training Officer level, with those in direct supervisory roles in relation to the learner knowing very little, if anything, about the course. Similarly, some of the employers who had learners on Work Experience did not consider it appropriate to get too involved because of the short-term nature of the Work Experience scheme. Thus, although the companies had the opportunity to get involved, some considered it was sufficient simply to release the young person.

638. Triangular relationship in practice:

The amount of consultation and co-ordination between college and learner was particularly high. This was because a number of students were following individually designed programmes of study, often involving several courses, or parts of them. Also, the decision over placement on the course was more open than on some schemes where there was no alternative. Finally, the course programme and its content were discussed with each student. Therefore, there was a strong relationship between college staff and learners, but because of the number of learners on Work Experience, or who were unemployed, or whose companies took little active interest, in only a small number of cases was there a strong triangular relationship.

639. Nature and extent of tangible contributions of scheme:

For the above reasons, again, tangible contributions were comparatively rare. For instance, very few of the projects related directly to the work being carried out in a particular company. Even where the learner was employed at an 'interested' company, the project was sometimes library-based, e.g., relating to historical development of company or products. Similarly, the supervision of the learner in-company was widely regarded as completely separate.

640. Adaptation and alignment:

With one exception, even those employers who did monitor course content did not make explicit any special requirements, as they were looking for a general understanding of business and commercial processes, although one employer did ask that their quality control technician receive a mix of Commercial and Mechanical Trades Principles.

641. Employer perceptions of the scheme:

(a) Relevance:

The employers generally perceived the scheme as more relevant to the employees' needs than to those of the company. However, all but one acknowledged that the scheme was relevant to the companies in that it gave a background of general commercial practice. Seeminly there was no expectation that the course would teach particular job-skills.

(b) Effectiveness of what is taught and how it is taught:

Most were disinclined to comment, but two did comment that they felt methods used were appropriate for those of low academic attainment.

(c) Strengths and weaknesses:

Again, most felt that they were not in a position to judge. Those who were more involved cited liaison as being particularly worthwhile and the fact that the course catered for the less academically able. However, it was considered a weakness that the scheme did not extend the more able and did not link into more academic courses for the brighter students.

Overall, then, it was apparent that many of the employers were favourable disposed to further education/day-release and welcomed the scheme for opening up opportunities for those for whom existing courses were not suitable. Thus, they did see TRADEC as particularly helpful for the academically less able.

LEARNER OUTCOMES

642. The future intentions of those learners who were either unemployed, or on Work Experience, obviously revolved to a large extent aroung whether, or not, they got a job. In the main, their responses concerning possible future courses, etc., centred very much on their individual requirements and there was no 'natural' progression for them.

For those who were employed, many of these came onto the TRADEC course either because they found BEC General unsuitable, or because they passed BEC General but did not qualify for BEC National. Either way, again, there was no 'natural' follow-on to TRADEC 2.

Learner achievement/satisfaction and perception of benefits:

No clear pattern of response, but this would be expected, given the different outlooks and expectations of the different groups. Again, those without permanent employement tended to view the total package of courses they were doing at college according to whether it would help them to get a job. They generally regarded TRADEC as interesting and hoped it would help in their search for a job. They often favourably contrasted the relaxed approach on TRADEC with the more formal attitude on other courses. Of those in permanent jobs, most were satisfied with the course, especially those who had previously taken BEC, but who had not been particularly successful. They differed on questions of the usefulness of the scheme in their present job, but were more likely to view it in terms of their own educational development.

643. Thus, overall, the course tended to be judged in more or less conventional terms by the learners, with the benefits perceived to be those of additional qualifications, etc., rather than either general self-development, or an improvement of particular job-related skills. That is, it was still very much regarded as a standard type of course, even if it was more interesting than others they had taken. As a result, some learners were reluctant to commit themselves on the value of the course until they had seen how it was received by 'significant others', like employers.

644 Assessment:

Seven learners successfully completed Stage 1, attaining marks in the range of 545 - 790. Stage 2 was completed by Stage 2 learners, attaining a higher average level of marks, in the range of 599 - 849. The theory marks were considerably better than those achieved in other schemes. This scheme was one which had moved away from the theory examination paper as the form of testing 'requiring written responses'.

It was noted that the poorest scores had been attained by those who were unemployed, on Stage 1, scoring poorly on practical work projects.

COMMENTS

645. General appraisals of strengths and weaknesses by parties to the scheme:

Both College staff and employers saw TRADEC as filling a 'niche' in the overall pattern of further education provision for those for whom existing courses are either unsuitable, or offer no possibility of further progression. The College also saw the scheme as providing a basic commercial course for those either on Work Experience, or unemployed, and co-operated with the Careers Services in 'selling' the course to these groups.

Those employers who were interested considered that the industrial liaison and opportunities for partnership between college amd company were a significant improvement on existing practice. The learners liked the informal approach and were generally reasonably satisfied, without focusing on any part of the course as being particularly useful, expressing neither the clear belief in the value of learning job-related skills associated with the Fabrication scheme, nor the belief, expressed by many on the Distribution scheme, in the improvement in confidence and ability to communicate afforded by the scheme.

646. General appraisal of strengths/weaknesses by the researchers:

The scheme clearly does meet the needs of junior clerical staff for whom existing Further Education provision is inadequate. Similarly, it does fulfil a function of giving a basic introduction to commercial practice. However, as a result of this, among other factors, the idea that the scheme is directly relevant to those doing particular jobs is weakened. Hence the scheme is judged in terms of being 'just another course', and assigned a position at the bottom of the hierarchy of courses in the Commercial field.

CASE STUDY 5

PROFILE OF THE SCHEME

647. COLLEGE 'A'

DEPARTMENT: Social and Health Education

SCHEME: Food Trades Principles

DATE OF INTRODUCTION: 1981

STAGES OPERATING 1981/82: 1

PATTERN OF ATTENDANCE: Day release of one day per week, to College (10am - 5 pm). In-company element 1 - 2 hours/week spent on project work and assignments.

Duration: 18 weeks.

STAFFING: Two members of College staff and three visiting lecturers were involved.

Stage 1: 1LII, 1LI
Public Health Inspector, two Hotel Managers

STEERING COMMITTEE:

A Steering Committee had been established in the first year of operation, including College Staff, Careers Service, Chairman of Local Hotels Association, and Trades Union representation. The Steering Committee of all College 'A' TRADEC schemes were undergoing reorganisation on a College basis, at the time of investigation.

DEVELOPMENT OF THE SCHEME

648. The College had participated in the Food Trades Principles Writing Group, set up in 1978, and was described as generally receptive to new courses. On completion of the Stage 1 writing process, it was the next 'natural' step to try a pilot in the College. This had been feasible in terms of staff commitments, at that time*. A gap in provision available and suitable for the employee in the food industry, with few or no qualifications, but with the potential to move into lower supervisory positions, was well known and the existence of a 'need' therefore assumed.

Target companies in the food industry were identified, and visited personally in order to recruit participants. Visits to 15 companies had produced ten learners for the first scheme. It had been found that it was the small establishments (e.g., small restaurants) which had been most responsive. Recruitment activity was being extended to

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* The first pilots of the Food Scheme had already been undertaken in College E.

Public Authorities - Old Peoples' Homes, Hospitals, School Meals Services, etc. It appeared that persistence in personal visits was the only effective means of student recruitment in an industry with a limited record of training at levels below the craft equivalent, and little training awareness. An attempt to convene a 'forum' of companies in the summer months of 1981 had produced only three replies from 33 contacts. Only four of the Companies recruited to the first scheme continued to participate in the second. Fall out appeared to be due to staff shortages, in most cases, and development of an unrelated institution-based training programme in one case. There were no plans to develop Stage 2 or Stage 3. The Course Tutor considered that there was little evidence of a demand at these levels. Only a very small proportion of the participants in the first scheme could, appropriately, have continued; it was felt that a considerable number of Stage 1 schemes would have to be run before a sufficient demand could be generated for progression. It was difficult to see which categories of learners could have entered at Stage 2, the Course Tutor asserted, since most of the potential clientele, including the mature and experienced group, needed the grounding which Stage 1 offered.

649. The Course Tutor had represented the College on the Food Trades Principles Writing Group, on the request of the Head of Department, and had naturally adopted the Course Tutor role in the subsequent College initiative. The Course Tutor role encompassed all recruitment and liaison activities, administration, including co-ordination of assessment, and project supervision. The Course Tutor also undertook approximately one-third of all classroom teaching, shared with the three other members of College staff and two visiting lecturers. The team had to be selected specifically for its interest in the TRADEC client group.

The Course Tutor had also taught on a range of conventional and non-conventional courses, including link courses (CSE Catering), 'O' and 'A' Level 'pre-nursing' courses, Food Handling (MSC) courses, among others. She had substantial industrial experience in Hotel and Catering Work and held a teaching qualification.

THE LEARNERS AND THEIR COMPANIES

650. Learners:

The number of learners in the Stage 1 scheme studied was eight. Their ages were as follows:

Age:	17	1
	18	2
	19	2
	20	2
	21	1

The educational qualifications held by the learners were:

< 3 CSE's	2
> 3 CSE's < 4 'O's	2

Occupational characteristics:

Two learners started the course while unemployed. One of these dropped out of the course, and the other obtained a job but wanted to continue with the course. Both were also doing other college courses.

Those in employment were:

1 hotel receptionist

1 waitress

1 sales assistant

1 fish fryer

1 trainee supervisor

1 tea attendant

651. Companies:

Company A	Medium size hotel, but part of a hotel chain. The learner was an hotel receptionist mainly involved in administration.
Company B	Small restaurant.
Company C	Bakers, also cafeteria: 26 employees in branch, but part of an extensive chain.
Company D	Fish restaurant: 30 employees
Company E	Store (150 employees), part of a major multiple chain. The learner was a trainee supervisor in the restaurant.
Company F	Local Authority: catering department employed 26. The learner did general low level jobs (washing-up, serving tea, etc.) and was initially on Work Experience.

THE CURRICULUM

652. The scheme used a thematic approach, where for each topic the cost, handling, nutrition, preparation, etc., would be carried right through. Similarly, a balance was struck between class-based work on hygiene, nutrition, etc., and practical catering. For example, during successive weeks the following were considered: potato dishes, unusual vegetables, salads, sandwiches.

653. Social and Life Skills was not treated as a separate subject but was 'hidden' in e.g. Customer Relations elements of the scheme, where it was considered by the Course Tutor to be less susceptible of rejection.

654. Mode of operation:

With regard to the detailed organisations and the time allotted, there was substantial variation between the first and second schemes. With the first, more experienced group of learners, a highly participative teaching style had been successfully used. This was because the emphasis of the course was (i) adapted to suit each individual and his employer; (ii) the teachers were under little other pressure as it was run during the 'academic vacation' and (iii) not least, the participants were all experienced and hence had plenty to contribute. (Their practical skills also were already more highly developed).

With the second scheme, teaching methods reverted to the more formal for two reasons. Firstly, as the course was run at a busy time, with examinations pending on other courses, it just did not receive sufficient of the teachers' time and attention. Secondly, as the learners had so little experience, they were very reluctant to contribute anything to the sessions. Interestingly enough, although this was regarded as unsatisfactory by the staff, it was deemed to be reasonably satisfactory by the learners themselves. So the expectations of the learners, coupled with other pressures, had a definite influence on the operation of the scheme in practice.

655. The first scheme had run for twelve weeks and had proved to be too rushed. The material was insufficient for 36 weeks. It was, therefore, decided to extend to 18 weeks for the second scheme. The timing of the scheme during the academic year was seen as important. When the first scheme operated during the summer, plenty of time and resources could be devoted to it. When the second scheme ran in competition with all the other courses, it suffered badly, because of the pressure of external examinations.

656. Adaptability:

An attempt to run the first scheme with 'non-food', as well as'food' people, proved "absolutely impossible". The differences were just too wide, and "theory doesn't work in practice in that respect", the Course Tutor considered the learners would have had to be split for almost all parts of the scheme in order to meet the different needs, and this was not a viable arrangement. However, it was possible to be adaptable within the much narrower range of those involved in food provision. Here, each company could be approached and asked to identify the most important topic areas to be covered. A common core could then be built up and projects could be used to facilitate any specializations.

Also, the impression was given that, as it was a 'food' course, practical lessons on food preparation had to be included. It is arguable whether this was required for those who were not directly involved with this (e.g., dealing with customers may have warranted greater emphasis for an hotel receptionist). Indeed, the learners themselves considered that whether the course was useful depended to a large extent on the job you did.

657. Thus, it would appear that Food Trades Principles can serve a range of occupations within which it can adapt to different circumstances. This range is, however, much more limited than that envisaged within any individual scheme. Of course, the full range of groupings of occupations could be accommodated if they were each sufficiently large to warrant completely separate treatment, as in the case of the College E scheme, filled with apprentice butchers.

EMPLOYER AND LEARNER INVOLVEMENT

658. Liaison:

There was regular liaison between College staff and the companies, but the College offered very much less scope to the employer to exercise choice over content, compared to operation of the first scheme. The College did not offer an individual timetable this time, although the companies still had an opportunity to influence course content through listing of priorities, with the most frequently occuring topics selected for coverage.

659. Triangular relationship in practice:

The link between College and company was perceived as quite good, although the employers were not very demanding. The learners had had an opportunity to discuss the course with company staff, although this usually took the form of occasional, rather than continuing, interest. Finally, within the teacher-learner relationship, the learners may have had opportunity to contribute to decisions concerning their own learning programme, but in practice very seldom did. There was a tendency just to accept things as they were.

Overall then, the framework of a triangular relationship was there, but both learners and employers were happy to accept a much more subsidiary role. In practice, the relationship was, therefore, rather low key.

660. Nature and extent of tangible contributions to scheme:

One employer was an industrial assessor. Otherwise, the only tangible employer involvement was over initial selection of topics and selection of a written project, which then usually required little help from the employer.

661. Adaptation and Alignment:

As already mentioned, employers could express a preference for topics - but this allowed for alignment within catering only and the scheme could not afford alignment for learners outside that field, e.g., the hotel receptionist.

662. Employer perceptions of the scheme:

(a) Relevance:

All but the hotel saw the course as relevant, although the reasons varied: 'the scheme enables learners to find out if catering is what they want to do', 'gives learners a greater awareness of the public and of hygiene', etc.

(b) Effectiveness of what is taught and how it is taught:

Only two employers commented on this directly. Both were satisfied.

(c) Strengths and weaknesses:

The scheme was generally regarded as a 'step forward'. Again, only two employers made specific comments about strengths: the scheme 'helps people to become more interested in their work', and 'brings people into catering so that they can find out whether they are interested in it'.

The weakness of the scheme was that it was not possible to go further after completion of the scheme; an interesting employer observation in the context of the Course Tutor's assertion of 'no demand'for subsequent stages. It was also considered that the scheme should either be made more specific (e.g. for hotels), or a much broader and flexible scheme able to cater for all interests.

LEARNER OUTCOMES

663. One of the unemployed learners dropped out when they obtained a job; several of the others had problems in attending regularly - they could not come if they had to 'cover' at the shop, etc. None of the learners was very sure what she would do subsequently. Three stated that they may be interested if another course was available.

664. Learner achievement, satisfaction, and perception of benefits:

The responses were characterised by apathy, with the learners reluctant to say whether the scheme was worthwhile, or whether they had achieved very much. There was a feeling that whether the scheme was useful or not depended largely on your job. There was no hostility towards the scheme, but very little enthusiasm either.

665. Assessments:

Seven learners completed successfully, achieving marks in the range of 506 - 698. There was little difference between assessment elements, the only very low mark occurring on the theory paper of one learner scoring poorly on all other elements, with the exception of the written report. Of the two unemployed learners originally enrolled, one completed successfully with a mark of 601.

COMMENT

666. General appraisal of strengths/weaknesses by parties to scheme:

Employers seemed to welcome the scheme, and the learners responded with passive acceptance. So it might have been considered a success, but the College staff felt that the other parties were not sufficiently critical and that the scheme did have several significant weaknesses. It was too vague, the employers accepted the course 'on sufferance', the learners did not have sufficient experience in catering to be able to contribute very much to the scheme; it was too time-consuming to run the scheme as intended, alongside academic courses during term-time; that the assessment was 'a nonsense', the objectives were not clear and the scheme generally needed to be made more durable.

667. General appraisal of strengths and weaknesses by the researchers:

The scheme does not have confidence of those who have to operate it at the moment. It was also felt that the number of recruits likely to be granted release to attend this scheme, and who could benefit it, was very small.

CHAPTER 11 : TRADEC IN CONTEXT - COMPARISONS WITH PROVISION FOR COMPARABLE TARGETS

668. The introduction of TRADEC predated the development of the concept of Vocational Preparation, as it is currently understood. It undoubtedly represented, at its time of initiation, one of the few forms of provision to have met with success in gaining and maintaining the involvement of young people employed in occupations below craft level.

It has, in recent years, continued to develop and extend its range of operation in the context of rapid expansion of provision for the former non-participant which has culminated in the strategy for development represented in NTI.

The findings presented and discussed in the foregoing Chapters have served to 'fill the data gap' on the reality of the TRADEC operation. These findings need now to be placed in context.

669. The injection of innovation into systems necessarily geared to support and facilitate the 'standard' is necessarily an expensive process in development terms. Innovation frequently encounters a host of constraints in institutional and attitudinal terms, as for example, traditional resource allocation systems come into play. Similarly, staff expertise, attitudes and approaches selected and developed to maintain standards and mainstream provisions are often ill-prepared to deal with the challenges of new developments and, as wider acceptance by populations party to the development, of parents. employers and practitioners in other parts of the system is often hard won.

670. TRADEC, as an innovation, has necessarily encountered, in its early stages of implementation, the difficulties and operational constraints characteristic of most innovations. It has, however, in recent years, received the stimulus and support of national developments in respect of the traditional non-participants, which have doubtless contributed to its expansion.

The foregoing findings have examined areas in which the TRADEC system in implementation appears to achieve its intended operation and performance, and areas in which it diverges from that intended operation and performance. Divergence can stem from several sources, including faults in the system itself, and external factors characteristically affecting the type of innovation, and not associated with the specific characteristics of the system itself.

The capacity of any new system to perform satisfactorily, by minimising the effects of opposing external forces, is also an important measure of effectiveness, though.

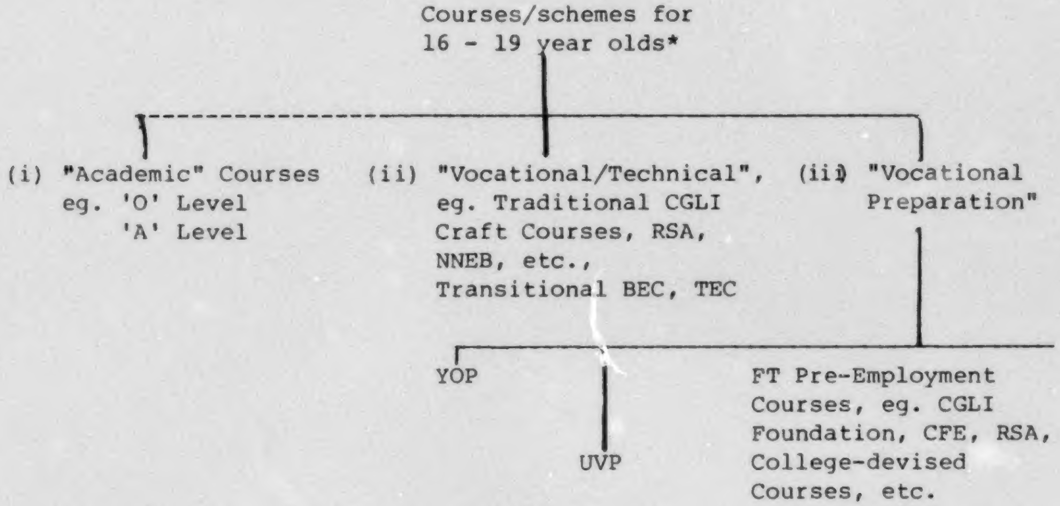
671. The findings concerning TRADEC in this study have been placed against existing and available data and knowledge concerning the operation of comparable schemes and courses in order that judgments may be made of the effectiveness of the scheme and of its potential for development.

An issue which is fundamental to the comparative dimensions of the study is that of the 'location' of the TRADEC development.

(a) In relation to existing schemes and courses engaging the participation of similar target groups,

and

(b) In relation to the main thrusts of development currently taking place in both of the vocationally orientated 'arms' of the model (FEU, 1981 : 9) of


Courses/schemes for
16 - 19 year olds*
(i) "Academic" Courses
eg. 'O' Level
'A' Level
(ii) "Vocational/Technical",
eg. Traditional CGLI
Craft Courses, RSA,
NNEB, etc.,
Transitional BEC, TEC
(iii) "Vocational
Preparation"
YOP
UVP
FT Pre-Employment
Courses, eg. CGLI
Foundation, CFE, RSA,
College-devised
Courses, etc.

672. The TRADEC approach clearly reflects some of the essential curriculum features characterising the Vocational Preparation 'package' and its stated and intended group is that of the non-participant in other forms of continued education and training.*

The case for comparison, and the essential focal points of comparison between TRADEC, and the developments gathered under the Vocational Preparation umbrella, is therefore clear.

673. The strengths of the TRADEC appraoch, claimed by its proponents, however, are expressed principally in terms of the 'inversion' of 'orthodoxy' which the TRADEC approach is said to represent, in a context of comparison of the effectiveness and potential of the TRADEC model and that of so-called 'conventional' provision in meeting changing vocational needs.

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*The comparison has been limited to the 16 - 19 population, in accordance with the terms of reference of the study.

There is, too, evidence of substantial numbers of young people participating in the TRADEC development who fall into the categories of those 'fully and realistically' committed to a certain trade, who would in normal circumstances be associated with conventional vocational/technical provisions but who, for reasons either of lack of adequate formal training opportunities to complement the Further Education courses which would be expected to be their destination, or of gaps in traditional provision, or of employer preferences, find themselves in TRADEC schemes.

674. The issues of adaptation to meet changing vocational needs are key issues at the points of development in the conventional 'camp' (see e.g., the work of the Hargreaves Committee*, and the direction of development in BEC General). Some redefinition of intended and actual participant groups necessarily accompanies these processes of change. Where the actual and intended targets of 'conventional' provision are redefined, so automatically are those of Vocational Preparation provision which is defined as 'residual' in terms of target. Similarly, where the distinctive features of the conventional provisions change, so does their relationship to those of the Vocational Preparation provisions. In these shifts and changes, the TRADEC development is frequently perceived to be 'on the interface' and comparison in both directions is therefore indicated.

THE EDUCATIONAL PHILOSOPHY AND METHODOLOGY OF TRADEC COMPARED WITH THAT OF VOCATIONAL PREPARATION, TRANSITIONAL AND CONVENTIONAL COURSES

675. While it is a mistake to assume that there is a formal or direct process by which specific educational policies or practices are deduced from educational philosophies, it is generally accepted that educational philosophies do guide educational policy - this has been described in the 'organic' connection between philosophy and education. Most developments in education have some philosophic underpinnings.

If one had to summarise the essence of the philosophic underpinnings of those Further Education courses described as 'traditional', it could best be encapsulated by the notions of 'education as initiation', as proposed by Peters (1965), with its emphasis on the importance of social consensus on the value of what is learned, and universal standards. The philosophic underpinning of Vocational Preparation development, by contrast, is that of education through experience [derived from Dewey, 1938], with its emphasis on the importance of instrumental purposes, on continuing individual growth as the end rather than the means, on relevance and experience as the starting point for inductive learning, and on the learner's special interests as the vehicle for learning through challenge and problem-solving. Each Further Education approach manifests some elements of the other - the difference is one of emphasis, rather than of essence. Transitional courses may be seen to represent a balance between the two.

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*See City and Guilds, 1982.

676. The different emphasis on the importance of consensus about what is worth learning, and of standards by which learning outcomes are measured, are immediately apparent in the model of methodology presented below (Fig. 11.1). The traditional and transitional provisions emphasise consensus seeking to define, by consultation with key interests through a national committee system, the framework, objectives and content of courses, leaving responsibility to the individual practitioner for elements of 'interpretation' only.

Vocational Preparation, however, seeks to define only an element of framework and objectives by consensus, this consensus being translated into a 'common core'*. Transitional courses, again, remain in an interim position. Vocational Preparation, by placing responsibility with the practitioner within the broad criteria of operation, puts to the fore individual needs and development and the importance of individual experience and relevance.

677. If the MSC model were to be extended to assessment, the differences in respect of the role of consensus would be seen to be extended to assessment approaches, traditional courses being characterised by external examination, to criterion-referenced standards linked to 'norms', or consensus about what performance levels may 'reasonably' be expected. Transitional courses are characterised by external moderation to ensure both achievement of criterion-referenced standards and adherence to methodology, while Vocational Preparation is dominated by moderation of adherence to methodology, with definition of criterion-referenced standards emerging as the 'issues of the day'.

678. Where is the TRADEC system placed in this? The system is clearly located in the Vocational Preparation group, both in terms of its intended target and its methodology. It is distinguished from other Vocational Preparation models by its combined features of the triangular relationship as a means of securing relevance and unification, its specifications based on generic skills and areas of competence, and its assessment systems.

Its distinctive features, when place alongside other Vocational Preparation models, are those of (a) the triangular relationship as a means of securing relevance and unification, (b) its published specifications, based on generic skills and areas of competence, (c) its assessment system, (d) its age 'transferability' (i.e., lack of age-specificity), and (e) its inbuilt system of progression. These differentiate TRADEC from other Vocational Preparation models and, in particular, from UVP, also operating principally in the field of the young person in employment.

FEU (1980) has articulated the set of criteria describing, and subsequently defining, the concept and forms of Vocational Preparation. As responsive programmes of personal development with instrumental aims they need to be characterised by the following if they are to fulfil their functions:

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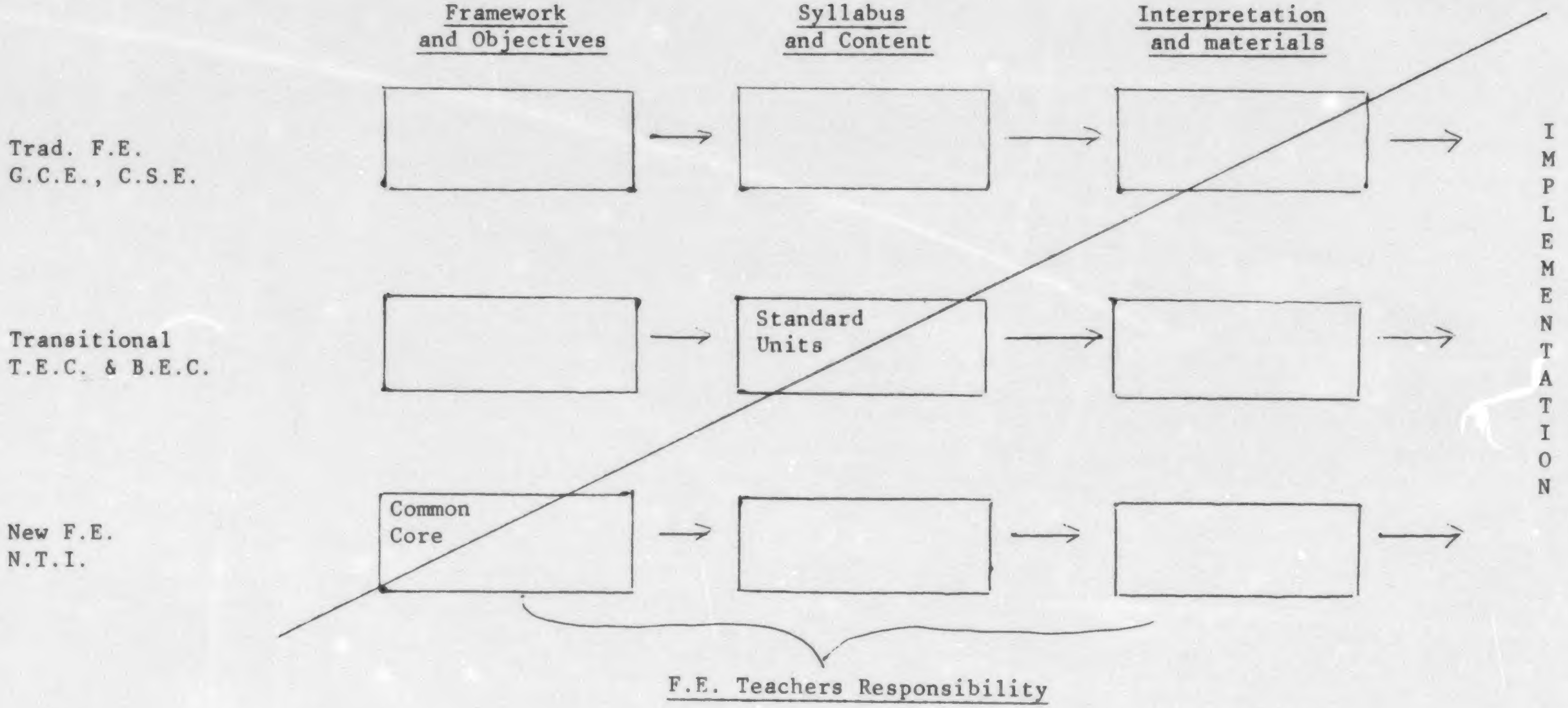
*See FEU 1979 "A Basis for Choice".

Figure 11.1: F.E. Teachers Responsibility for Curriculum


Framework and Objectives
Syllabus and Content
Interpretation and materials
Trad. F.E.
G.C.E., C.S.E.
Transitional
T.E.C. & B.E.C.
Standard Units
New F.E.
N.T.I.
Common Core
IMPLEMENTATION
F.E. Teachers Responsibility

From: Malcolm Cribb, Manpower Services Commission
- presented at N.A.S.D. Staff Development Conference
Loughborough 14th May 1982

A NEGOTIATION process, between clients and teachers and between agencies, which needs to be defined explicitly. This means real responsibility of the young person in planning his/her programme. In the TRADEC model, some degree of negotiation is intended, through the triangular relationship between employers, learners and the College.

COUNSELLING AND GUIDANCE LINKED WITH FORMATIVE ASSESSMENT:

679. A system of guiding clients within the scheme or through several schemes to optimise achievement and employability. Certification processes, giving formative and summative appraisals are required, the currently recommended form being the 'profile' providing a common system of record-keeping and certification.

The TRADEC model does not specify or make explicit the counselling and guidance functions, but would argue that these are integrated with the process and arise automatically on implementation. This is linked closely with the integrated approach to Social and Life Skills. Its assessment system is both potentially formative and summative. It does not, in its certification, record attainment in a way which conveys intelligible information about strengths, attainment and capacities in the various personal development dimensions it seeks to serve.

680. In BASIC SKILLS, the TRADEC model does not make explicit an identifiable core of basic skills which it is seeking to transmit. It does, by scheme, specify generic areas of understanding and competence which are sometimes expressed in skill terms. Basic Skills, it would claim, are conveyed through the process, and particularly through the project work which involves the development and exercise of manipulative, literacy, numeracy, communication, copying, etc., skills. These, however, are not required by the model to be specified as part of an explicit learning process which can be monitored, assessed or reviewed. This feature it shares with UVP.

EXPERIENCE:

681. Within the inductive approach, approaches based on and using experience as a vehicle for learning are fundamental. The TRADEC model intends that employers' premises should be used, wherever possible, as a location for elements of the scheme; where this is not possible, plant processes, etc., should be brought into use in college-based work. By this means it therefore employs work-based experience. It does not include a requirement for residential experience. In terms of its model and methodology, therefore, TRADEC is potentially able to meet the defining criteria for Vocational Preparation (given alignment in respect of closer specification of requirements for the Vocational Preparation target at college level).

682. It has been observed (FEU, 1980 : 13) that no one model of Vocational Preparation is uniquely suitable, all having their characteristic advantages and deficiencies which become apparent on implementation.

In the case of TRADEC it has been seen that on implementation there is a considerable degree of variation in the extent to which schemes meet FEU criteria. In practice there is, as would be expected, considerable variation in the extent to which negotiation involving the learner takes place, in the extent to which basic skills are made explicit and monitored, and in the ways in which the counselling and guidance function materialises, if at all. There is also variation in the effectiveness with which experience is employed within the learning process.

While some of these variations are due to external factors to the system, the research has revealed that there are clearly areas in which the construction of the system does not serve to facilitate their successful achievement. These are discussed in the following pages.

THE MODEL FOR COMPARISON OF IMPLEMENTATION

683. In comparison of the IMPLEMENTATION of the TRADEC approach with that of the Vocational Preparation and traditional/transitional models, two levels of comparison require consideration:

(a) the operation of the system, (i.e. the way in which the philosophy and methodology is translated into practice).

and

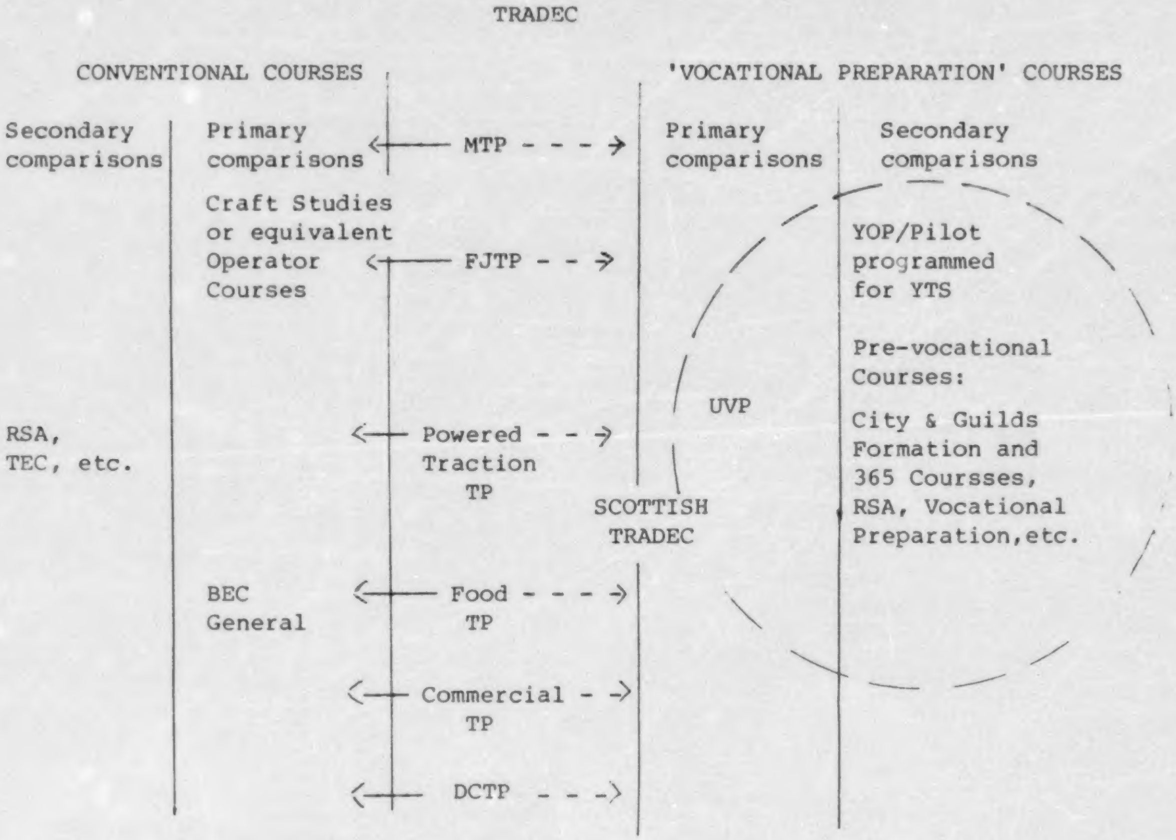
(b) the performance of the system, in terms of processes and outcomes.

The former is of primary importance in the comparison of distinctive features, the latter in the assessment of effectiveness.

In view of the proliferation of courses and schemes under both the Vocational Preparation and 'conventional' arms, it has been the judgment of the researchers that, in comparison to implementation, particular attention should be given to selected forms of provision with which it appears the most fruitful and significant comparison can be made, second level comparative comment being reserved for other forms of provision where these present comparable or contrasting features of particular importance.

684. The selection of primary and secondary comparisons has been informed by discussions with representatives of intending users of the research, and consultants to it. The working model appears below:

Comparison of the implementation of the TRADEC approach with that of other forms of conventional and Vocational Preparation provision*


TRADEC
CONVENTIONAL COURSES
'VOCATIONAL PREPARATION' COURSES
Secondary comparisons
Primary comparisons
MTP
Primary comparisons
Secondary comparisons
Craft Studies or equivalent Operator Courses
FJTP
YOP/Pilot programmed for YTS
Pre-vocational Courses:
UVP
City & Guilds Formation and 365 Coursses, RSA, Vocational Preparation, etc.
RSA, TEC, etc.
Powered Traction TP
SCOTTISH TRADEC
BEC General
Food TP
Commercial TP
DCTP

685. The primary level comparison with UVP is important for reasons which include its encapsulation of the essential Vocational Preparation curriculum features (FEU, 1981 : 12 - 13), its orientation towards young people in employment and therefore the importance of employer acceptability, and the acceptance of TRADEC I for UVP funding. Secondary level comparisons will also be made with other components of the Vocational Preparation package, in respect of the essential curriculum features. The 'drawing-in' of UVP under the NTI umbrella and therefore its disappearance as a distinct and separate scheme, and its alignment with wider Vocational Preparation practice, from 1983, renders lessons drawn from past experience most important at this stage.

686. The first level comparison with Craft Studies is of importance for reasons which include (a) the origins of TRADEC schemes in 'filling a gap' for those who, on the phasing out of Craft Practice courses, were not appropriately served by Craft Sutdies courses since they were not receiving adequate complementary training (this role of TRADEC continues to be seen as its primary function by a significant number of agencies), (b) the developments under discussion by the Joint Advisory Committee of City and Guilds and the REB's on the

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* 'Stages' of operation represent another set of variables, in terms of comparison.

future of Engineering Craft Courses, which have considerable implications for the role and function of TRADEC and, (c) the implications of changes in the balance between traditional craft and limited skill occupations, for provisions on the boundary of change.

The first level comparison with BEC General courses is included for reasons of a degree of overlap and interchange between the client groups in the Business Zone of operation of TRADEC, and because of the moves towards adaptation of the BEC General to meet MSC and FDU criteria for Vocational Preparation.

687. In comparison both of operation and performance, the criteria adopted throughout are presented in TRADEC III. It will be noted that the questions relating to TRADEC were developed under the main headings of this model in order to facilitate the types of comparison detailed above.*

THE 'MECHANICS' OF THE SYSTEM

688. In practice, the TRADEC system has been shown to be supportable and economically operated (by Vocational Preparation standards) at regional level.

Its strengths as a system lie in this relative economy of operation, and in its moderation systems which, although demonstrating several deficiencies in its practical operation, represents a significant advance in terms of quality control in Vocational Preparation, over the diverse and often haphazard arrangements previously associated with UVP. It is less cumbersome than the moderation systems of transitional schemes, which use appointed moderators on a regional basis and is probably potentially more effective in disseminating good practice, although there is no firm evidence of this. The system, in the view of the researcher, is worth further examination.

689. Another criticism sometimes made of the UVP operation is its cost of operation at local level for the numbers involved. This is largely due to the high development costs involved in generating each scheme from scratch - a cost not incurred by the TRADEC system. This disadvantage, as has been shown, has to be weighed against the benefits of enhanced employer involvement shown to be associated with the schemes which do not start from a highly structured base, (NFER : 1980: 48-69). Overall costs of individual schemes, however, appear to be broadly comparable with those of TRADEC and, as expected, greater than those of conventional schemes under current operating conditions.

690. Another point of importance to be considered here is the transferability of the learning gained in a scheme designed on a generic base, as opposed to e.g., a single company base. TRADEC definitely scores in this respect, although again there is variation within UVP between those schemes designed to prepare young people for work in the whole industry (DTIB schemes), and those focused on specific company and circumstances. Weaknesses of the TRADEC system lie in the recurrent problems in maintaining adequate employer participation

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*See TRADEC III (paras 12 - 14)

**See Kendall, G., 1981

in the Committees, particularly at Writing Group level - a problem which has been evident in the Steering Committees of UVP too, but which is not characteristic of the established conventional and transitional courses (perhaps by virtue of their national status). It should be noted, however, that industrial representation at Committee level is seen as less critical in TRADEC, which seeks to secure relevance and employer acceptibility through the 'working partnership' arrangements at the level of individual schemes. Also the mechanisms of harnessing feedback, reliably and systematically, and using it in scheme development areas of relative strength in conventional and transitional courses. While unnecessary in the early days of TRADEC when operation was limited, the extended operation appears to require better feedback and development mechanisms than currently exist.

691. One feature of the examining, validating and co-ordinating badies in all three categories of provision is their readiness to examine critically and publicly their own operation, and this is very much in evidence in their publications and reports. While one accepts the position of a new development initiated at regional level and concerned to establish itself, there appears to be little comparable public dissemination of balanced information about the strengths and weaknesses in performance of the system, directed towards discussion, review and scheme development. This may, again, be attributed to the rapid expansion of the scheme. The network of relationships established during the scheme's early operation was probably adequate to deal with this. This can be considered to be another manifestation of the scheme, having outgrown in some respects its operating mechanisms.

TARGET GROUPS

692. The intended targets of TRADEC, former non-participants in Further Education engaged in occupations not associated with long-term training, are close to those of UVP in the 16 - 19 age range, but extend beyond the UVP target to the adult non-participant population in similar occupations.

The UVP target is described as those young people who at 16 enter the job market directly and receive little in the way of Further Education or systematic training. TSA (1975) characterised the group and their jobs thus:

- 'jobs, simple and monotonous, and as now constituted offer no prospect of advancement'.

- 'requiring little or no skill and, consequently, little of no training'.

The target clearly forms part of the wider Vocational Preparation target defined as residual.

693. The BEC General target is also similar, in terms of attainment level for the 16 - 19's, but extends beyond UVP and TRADEC to include those 'expecting' to enter the relevant occupations, (i.e. full-time pre-vocational students), as well as those already in work. The BEC General course aims to provide

a broad educational foundation:

> 'appropriate for young people with few, if any, academic qualifications who expect to enter, or have recently entered, employment in industry, commerce, distribution, or public sector'.

While the nature of occupational level is not specified, it can be deduced from the reference to low academic attainment levels that the occupations of the intended target are in the UVP/TRADEC band. BEC General is, again, age-specific aiming to provide a foundation education for new entrants, and developing separate post-experience provision for the older age groups.

694. City and Guilds conventional operator courses have, individually, much more limited targets, being directed towards groups with specific operative functions, and at the higher skill levels, e.g., Iron-Steel Operatives. The new Specific Skill courses, too, are directed at narrow targets, e.g., bar attendants. In Craft Studies the principal target is currently those in preparation for fully skilled craftsmen occupations.

This embodies those groups of young workers requiring long-term systematic training. Where this is not received in the company, it is intended that it should be provided through practical process experience. The stated targets of TRADEC and City and Guilds Craft Studies are, therefore, adjacent but quite distinct at present.

695. However, in the Engineering Zone, the recommendations of the Hargreaves Committee* create an important new context within which targets should be reconsidered. The move is clearly towards extension of target groups to all those using craft skills, both in non-traditional areas and in less skilled occupations. The Sub-Committee has recommended that, following the establishment of a master syllabus bank of Further Education related to engineering craft processes, the Advisory Committee should consider a range of main and supplementary selections from it to meet needs associated with:

(i) existing craftsmen and their specialisms

(ii) the introduction of new technology or processes

(iii) providing for craftsmen (including adults) who need retraining or updating

(iv) providing for unconventional grouping of skills demanded by local employment opportunities

(v) the economic simultaneous provision for college intakes which may need

- a narrow range of skills (operatives)

or

- a wider range of skills (conventional craftsmen)

or

- a full range of skills

(vi) pre-vocational courses.

* [City and Guilds, 1982 : 9]

The Committee goes on to recommend that, where formally reorganised industrial training is not provided, adequate practical experience should be ensured by successfully completing a practical skills test, or by following a programme of practical process experience, in the teaching institution or in a company.

696. When the client groups actually achieved are examined, it has been shown that in TRADEC participants are spread through the whole range of skill levels from unskilled to craft level, and above, but are differently clustered according to scheme. In the Engineering Zone, participants are clustered at the interface between the production trainee employing a limited range of craft skills and the multi-skilled craftsman, and certainly draws in a significant proportion of participants for whom the option of Craft Studies, supplemented by process experience, is intended.

697. They differ from 'mainstream' UVP participants in skill level. The small number of engineering UVP schemes operating tend to cater for the lower skill levels. The Scottish evaluation of TRADEC (undertaken from a UVP standpoint) also points to the distinction between UVP and UVP/TRADEC, in terms of skill levels of participants, with particular reference to the Engineering Zone, noting the predominance of semi-skilled and apprentice level employees. The distinction was also noted by the NFER research team, who felt that the TRADEC schemes they had visited represented, by virtue of the nature of the client groups, something which was distinct from mainstream UVP.

698. The high skill orientations of participants are particularly marked in the Scottish development in which in the engineering area, Stage 1 TRADEC is clearly seen as, first and foremost, a replacement for Craft Practice for those who would normally be considered to require, but who do not receive, complementary training in their Companies. Hence, the scheme is offered at Stage 1 only in most cases and feeds thereafter into City and Guilds Craft Studies. It can be argued that the small operation of UVP in the engineering field is attributable to the greater difficulty in securing the participation of the low-skilled operative, than of the more highly skilled production trainee, frequently still termed an 'apprentice', with all the associations and expectations of Further Education and training which that carries.

699. In the Business Zone, participants in TRADEC Distribution schemes are not widely spread in terms of occupation, the vast majority being located in sales assistants' positions. The target, as expected, is very close to that of the mainstream UVP schemes. TRADEC, by virtue of its three-stage operation, draws in more participants in, or entering, junior supervisory levels at Stage 3. The BEC Distribution (General) has been shown to attract primarily Sales Assistants and Trainee Managers..

While BEC General, with options in e.g., Book-keeping and Accounts, Use of Office Machines and Equipment, etc., probably comes closest, in respect of its participants, with TRADEC Commercial Trades Principles and UVP courses with a clerical orientation, in which participants' occupations are clustered in the junior clerical area.

A breakdown of BEC participants showed that 74 per cent were involved in using office machinery and calculators, approximately one-half were involved in handling money,and more than one-third were involved in serving customers*.

700. There is limited experience of the operation of Food Trades Principles. However, those targets actually achieved to date are clearly distinct from the craft level in the Catering field, coinciding more closely with the UVP target group and, in some instances, with the target of the City and Guilds Specific Skill schemes now undergoing rapid expansion in response to substantial demand. It comes closest to the participants both of TRADEC Commercial TP and UVP courses.

701. Evidence has shown that both TRADEC and UVP require intensive and insistent 'selling' to employers in order to secure participation of the target group, and that this requires the development of special skills in scheme organisers. It has been shown to represent a special challenge to co-ordinators of college-based schemes in UVP, and this is strongly reflected in the TRADEC experience. The greater ease with which TRADEC attracted participation in its earlier stages**can be attributed largely to the replacement of craft practice function which caused it to take hold quickly in the Engineering areas in which UVP has made little thrust.

702. The wastage rates from UVP and from TRADEC are broadly comparable at around the 10 per cent level, with the majority of withdrawals due to redundancy, moving, and similar reasons. (Reference to UVP, Scottish TRADEC evaluation, Chapter III of this study). There is little doubt that wastage in both BEC and City and Guilds is considerably higher. The BEC survey report shows that there is a 66 per cent completion rate among part-time students who, in general, perform significantly less successfully than full-time, in terms both of dropout and final results. The dropout rate in City and Guilds, still relatively high at about 30 per cent, may be attributed partly to inappropriate placement among those who are in the intended TRADEC band but classed as apprentices by their Companies, while they are in reality performing jobs considerably different from those of a multi-skilled craftsman and often receiving little or no systematic training. It was noted in the colleges in which the Case Study Schemes were investigated, that this placement sometimes occurred at the insistance of the employer wanting the nationally and internationally qualification of City and Guilds because of its currency.

703. In the case of BEC there was some evidence of interchange of students between BEC and TRADEC in the Commercial and Distribution fields, reflecting the close similarity of targets already noted.

TRADEC was clearly scoring in recruiting participants in establishments with little previous training record or awareness, by virtue of the greater degree of direct practical orientation it carries, in comparison with BEC. It was also drawing substantial numbers of WEEPs trainees, preferring the practical orientation of TRADEC to the alternative Social and Life Skills provision which has a generally poor record in attracting and maintaining the participation and motivation of these trainees.

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*Draft of survey of courses undertaken in 1981/82 by BEC.

**The difficulties encountered in research targets in the UVP pilot scheme operation are outlined in NFER, 1980.

It was also achieving success with targets in some large chains who saw it as more directly applicable to their needs than BEC General, although there was some indication of reversion to BEC General in the case of 'more able' young people which, it was suggested, TRADEC failed to 'stretch' sufficiently. The feed into Commercial and Distribution Trades Principles, Stage 2, of BEC Pass students, was described in Chapter 3. TRADEC is clearly meeting the need of a target for whom there was no other opportunity for progression.

704. The progression issue is an important one. TRADEC clearly affords progression through its Stage Structure, a route forward not offered currently by UVP . Progression from Stages 1, 2 and 3, City and Guilds Craft Studies, Part II is already established and is the 'norm' for several MTP and FJTP schemes, catering predominantly for craft level youngsters not receiving complementary training. Progression in areas, such as Food Trades Principles, is not established, nor progression routes from TRADEC Commercial and Distribution fields.

In general, TRADEC is currently offering more tangible progression opportunities to its participants than is other provision under the Vocational Preparation 'umbrella', particularly UVP.

705. In terms of level of qualifications and age range of participants there is, apparently, relatively little difference between the UVP and TRADEC populations. The TRADEC sample was characterised by predominance of 16 - 19 year olds (91.5 per cent)* The modal qualification level was $\geqslant 3$ CSE's, < 4 'O's (54 per cent). The majority of participants (all but three) were male, in the Engineering Zone. Distribution, Food and Commercial scheme participants were predominantly female (75 per cent).

The NFER sample had the following characteristics:

- most had left school at 16
- equally balanced in sex
- twenty-two per cent had no graded examination results:

  47 per cent CSE qualifications, 29 per cent GCE 'O' Levels and 2 per cent GCE 'A' Levels

a strikingly similar population to that drawn into TRADEC, although the NFER researches noted that the level of qualifications was relatively high, when compared with the intended population, and suggested that this could be attributed to employer selection of participants for the UVP schemes.

Similarly, BEC General has been shown to attract a participant group in which almost one-half have no GCE 'O' Levels.

706. City and Guilds Craft Courses are widely thought to be characterised by a modal level of school attainment slightly higher than that of TRADEC participants (in the current circumstances of supply far exceeding demands). There is little statistical evidence available at national level to support this. However, local and regional studies of Ryrie and Weir (1980), Evans (1982), have produced some evidence showing the modal educational level of craft apprentices to be in the same band.

The modal age of TRADEC Stage 1, participants is comparable with that of UVP and BEC. The modal age of the three stages, taken together, is comparable with that of City and Guilds Craft Studies, in the Engineering Zone. The TRADEC model also differs in being more readily adaptable to older age targets than either the UVP or BEC models, which are clearly designed to be age-specific and to provide a 'foundation' experience.

SPECIAL CURRICULUM FEATURES

707. Curriculum Orientation:

The examination of the curriculum methodology has revealed TRADEC to be considered and intended to be a form of provision standing on the two legs of individual development and industrial needs.

In this it stands, it can be argued, between the orientation of City and Guilds in which industrial needs predominate*, and UVP, where personal development needs clearly predominate, both in construction and intention. It is probably closest in its general stated orientation towards personal development, using vocational interests as a vehicle,to the UVP model. In the Business Zone, its aims bear interesting comparison with those of BEC General, which states its primary purposes to be the provision of a broad educational foundation for the target group, to develop understanding and skills in the central themes of money; people; ability to receive and understand information and to express oneself clearly; a logical and numerate approach to business problems; to develop work competence through practical assignments; to foster personal development and development of further vocational skills (through option modules) enabling students to become more effective in immediate employment; to help students to develop a realistic understanding of employment in business, distribution and public administration, through a period of work experience or through simulated exercises

708. However, in practical implementation the curriculum orientations become widely variable. The TRADEC scheme, in operation, varies widely in its orientation between predominance of individual development needs and of predominance of more generalised industrial requirements, (which may be mutually reinforcing, or opposing).

The NFER Survey has revealed, in its presentation of the range of scheme types (NFER, 1980: 82-106) that similar variations exist in other UVP schemes, a point which is reinforced by the observations of the research team.

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*in respect of conventional provisions.

In TRADEC the orientations, it has been shown, tend to differ between the engineering and non-engineering areas. Engineering Zone schemes are repeatedly found to be referred to in terms of their intention to transfer a body of skill, developing people as individuals through the process, while Commercial and Distribution Schemes are most frequently referred to in terms of their confidence-producing capacity, contrasting with the more cognitive orientations found, in practice, in BEC General.

ALIGNMENT WITH INDIVIDUAL AND INDUSTRIAL REQUIREMENTS

709. These questions lead naturally into those of the ease of alignment of schemes with individual and industrial requirements, and of employer and learner involvement.

TRADEC and UVP rely, primarily, for alignment on local direct involvement of the participating employers. In the former case this is within a flexible framework, and in the latter case within broad criteria, generally, or within a variety of models developed by different sponsoring bodies. Both also rely, to a lesser extent, on employer representation at Committee level. The traditional and transitional courses, on the other hand, rely, principally, for alignment on high level consultations with industrial representatives through the Committee system, leading to continuing revision of syllabi and programmes. They rely, to a far lesser extent, on local consultation on scheme content. There is 'space' for consultation, which is generally encouraged, and in good schemes this is carried out, but since it is not a requirement there is a requirement there is a tendency for local consultation with individual participating employers to be limited.

710. Alignment with specific needs is therefore less good. The argument that this is a strength, rather than a weakness, is sometimes put by employers and learners, as well as the validating bodies themselves, in view of the mobility and transferability of learning within the industry which can be afforded by schemes devised on the basis of consensus at national level concerning what should be learned.

However, both City and Guilds and BEC recognise the merits of specific alignment, too. The City and Guilds Certification of a range of company-devised and college-devised skill schemes, and particularly their specific skill schemes in the Food Industry, illustrates capacity to respond to requests for specific alignment.

711. It has been shown that several employers in Distributive Industry in Yorkshire and Humberside had switched from BEC Distribution to TRADEC because the latter was seen as more directly relevant in manifesting the need already identified by the BEC Survey Report Certain employers outside retailing wanted courses to cater more for their needs, e.g., electrical wholesalers, while retailing firms wanted more retailing.

It is here that TRADEC's grouped approach and variable emphasis can score, provided the spread within a given group is not too wide.

712. There was evidence in the BEC Survey, too, that many employers were dissatisfied with the level of liaison and consultation in respect of schemes (although it should be noted, from the experience of this and related research, that the same employers saw discussion meetings and college visits which required active involvement as too consuming of time for them to become regularly involved).

713. It has been asserted that Vocational Preparation schemes, in contrast with transitional and traditional, rely on direct involvement and consultation with local employers for effective alignment. In both UVP and TRADEC models the strong recommendation is that at least part of the participants' scheme activities undertaken on the employers' premises, using the plant, equipment and processes. This is seen as the most effective means of alignment with employer requirements, and of ensuring that elusive characteristics of 'relevance', so vital to these forms of provision.

714. It has already been shown that employer involvement in the form of company-based activities and involvement of company staff in TRADEC and in UVP model-based schemes tends to be at a lower level than in the open UVP schemes. The observation concerning lower levels of company-based activity in TRADEC than would normally be expected in UVP schemes has been reinforced by the observations of the Research Fellows monitoring the implementation of TRADEC in Scotland, from a UVP standpoint, and UVP Field Organisers. This, however, is not to say that UVP has achieved a generally high degree of success. The NFER study commented:

> 'It would be fair to say that all too often employers, and in particular trainees, regarded the off-the-job sessions as comprising the entire scheme'.

and noted that in college-managed schemes extreme difficulties present themselves in any attempt to insist on employer inputs or to monitor, or 'police', the company component. The risk, of course, is that the company will withdraw under these circumstances and their goodwill will be lost. This was certainly the case in TRADEC. Many Course Tutors spoke of the impossibility of making demands on employers in this respect, even where funding for in-company elements was being granted. Organisers of schemes initiated by the ITB s were clearly in a better position to check on in-company elements. The demise of many of the ITB s and the inevitable change in balance towards college-managed schemes raises many questions about the support of the in-company element characteristics of UVP.

715. In this sense,it may be that the employer involvement model of TRADEC has some strengths. The opportunity for employers to make a tangible input, through consultation, over selection of parts of the work of the scheme and support in the form of materials and equipment, without the commitment of a company-based programme, particularly difficult for the smaller employers, which feature strongly in the TRADEC population, to achieve. However, there is some cost in relevance, as our case studies clearly showed.

716. In UVP it was found that most schemes included an in-company element for which company personnel were responsible. The extent to which this materialised was highly variable; 60 per cent of employers confirmed that one of the Company's personnel acted as adviser to the UVP trainees, in most cases nominated as the 'Industrial Tutor', a finding also confirmed by trainees' responses.

By comparison, it is seen that, within TRADEC, while most schemes afford opportunities for in-company work, usually on an 'ad hoc' basis, 64 per cent of trainees stated that little or no part of their project work had been undertaken in their Company, while other in-company activities were minimal. Only a very small number of responding empooyers confirmed that one of the company's personnel was assigned to act as a Supervisor/Supporter in a role equivalent to that of the Industrial Tutor, although many claimed to give more generalised support. A more direct comparison may be made in the case of Distribution Schemes.

Ten per cent of employers in DITB/UVP schemes, based on a model, involving 45½ days on-the-job training, claimed that none of the UVP scheme took place in the Company. Twelve per cent of learners agreed; 40 per cent of employers made mention of project work, but not of any job rotation or training. By comparison, TRADEC Distribution gave employers responses of 80 per cent claiming that none of TRADEC took place in-company, and 68 per cent of learners claiming that little or none of their project work had been done in-company (with smaller, overlapping proportions claiming some in-company assignments and other activities). This supports the general observation of lower levels of company-based activity. In some companies in Distribution, in which job training and rotation had been in existence before the scheme, neither employers nor learners considered them as part of the scheme, (even where funding was being received) and there were no attempts at integration. This phenomenon also occurred within mainstream UVP schemes. However, in one TRADEC scheme in which it occurred the Course Tutor considered integration, even in a two-company scheme, to be extremely difficult to achieve in a college-managed scheme, and was impractical from a resources point of view.

717. In the many cases (both in UVP and in TRADEC) in which planned experience/training integrated with educational components does not take place, the natural process of learning through day-by-day experience on the job does, of course, take place (although it would be a mistake to assume that all such learning is, in essence, 'good' learning). There are variations in the extent to which this form of unstructured experiential learning is used in schemes and in the effectiveness with which it is used. The structured project approach of TRADEC, involving employer consultation is, undoubtedly, used effectively in the TRADEC model, both in employing the young person's day-by-day experience, and in securing a degree of integration in the learning experienced in different locations during the course of the scheme. This approach is now being recommended by BEC for part-time employed students.

In its latest Review of Standards, BEC has recommended that:

> 'serious attention be given to development of assignments concerned with abilities, other than recall ....., and especially to the use of knowledge and experience drawn by part-time students from their jobs, e.g., obtaining, analysing, and reporting on aspects of their work, etc.'

commenting that the experience of centres using such assignments had underlined the fact that 'General Award Students can achieve highly when motivated by situations and tasks they see as relevant, and when clearly briefed.' (BEC, 1982 :)

718. Most scheme organisers of UVP suggested that:

> 'to achieve a real synthesis, scheme organisers implied that the employers' role had to be participating. Tutors and employers had to share responsibilities and be closely, if not equally, involved in the planning of schemes and in their execution.'

As we have noted elsewhere, effective integration is integration in the experience and perception of the learner; there is still a very long way to go in achieving this integration in the implementation both of TRADEC and of UVP. The perceived lack of relevance of TRADEC to day-by-day experience, articulated by a proportion of learners in the whole range of TRADEC schemes selected for case study, is an indication that the system is not working as intended at implementation level in this respect. A major factor here is the number of companies involved and the range of different work contexts and requirements represented in the scheme. Another factor is 'lack of involvement' of the learner in discussion of goals and intended outcomes of their learning.

In others, the multiplicity of targets and occupations was shown to render alignment very difficult in practical terms. Substantial coverage of all 'compulsory' content was required to meet the range of needs, resulting in overload of content in those schemes attempting to abide by the requirements.

719. Alignment through project work was also, in these cases, rendered difficult by the sheer volume of liaison activity involved in the construction of appropriate projects. The result of this was all too often the use of stereotyped and repeated exercises, as minor projects and assignments, a practice strongly discouraged by YHAFHE.

It was seen, however, that in schemes not hampered by too great a number of companies, the projects were effectively used as instruments, both of alignment and of intebration, and were frequently seen to be more effective than their counterparts in UVP schemes.

720. The dangers of removal, or reduction, of the company-based components, in terms of perceived relevance, have already been noted although it has also been argued that effective liaison and consultation can be as successful in achieving relevance to the learner in schemes without in-company element. This is a marked area of difference between the findings on perceptions of UVP and of TRADEC participants. While TRADEC participants generally welcomed the practical orientation of TRADEC, many claimed that any link with their day-to-day work was purely fortuitous. It was on the basis of findings similar to this that the Jordan Hill Research Fellows were led to describe TRACEC as 'practical education', rather than the unified programme of work preparation encapsulated by the TRADEC model. The NFER UVP study, on the other hand, revealed that trainees generally found the scheme relevant but, in common with the TRADEC experience, did not perceive integration or unification of different course components to be taking place.

721. In conventional and transitional courses the evidence generally conveys a picture of some dissatisfaction of students with the direct application and matching of their Further Education experience to training and experience of work, widely held to be a product of separation of responsibility at national level for the various components of the young person's preparation - a problem which the Vocational Preparation models have sought actively to avoid. (FEU,1980 : 118-125)

722. Where evidence of relevance and acceptability to employers is examined, the TRADEC findings revealed that the majority of responding employers (represented by company personnel with responsibility for TRADEC trainees and varying in role according to the size and nature of the Company, found the scheme satisfactory and acceptable.

The welcomed, in particular,

(a) the improved liaison with the college, which had been associated with the scheme, and which contrasted in most cases with their previous experience of conventional and other courses.

(b) the practical orientation.

Negative perceptions tended to be directed towards Further Education in general, rather than towards TRADEC in particular. Some employers, supporters of the City and Guilds route they had taken themselves, perceived TRADEC as being a little too narrow, in focusing on company requirements, and felt that a broader approach would improve the scheme. Others considered alignment to be insufficient to meet their specialised requirements.

A significant proportion had formerly sent their young workers to City and Guilds Courses and were unaware that the course they were on now was any different, placement having been made by the college. Others, however, commented that this was the first time that they had found a course suited to the needs of their particular type of trainee.

These perceptions of TRADEC were reflected in the study of Scottish TRADEC. The recurrent lack of awareness of the companies of the nature of the course their trainees were undertaking was commented on specifically, but is by no means confined to TRADEC, as the UVP investigations and, to a lesser extent, BEC Survey, have demonstrated. However, the automatic placement by some TRADEC colleges of trainees not receiving complementary training onto TRADEC certainly increases the incidence of this level of ignorance of the scheme.

723. The findings of NFER that the general orientation of employers to UVP schemes were those of advantage afforded by participation in the scheme, particularly in respect of improved communication and understanding between employers and the education and training services, was clearly consistent with the TRADEC findings.

Another perception recorded by UVP employers, which was not strongly reflected in the TRADEC findings, was that of the more balanced and comprehensive approach to the education and training of their young workers.

In both schemes only a small proportion (UVP : 7 per cent, TRADEC : 10 per cent) of responding employers had reservations about the scheme in which they had participated, and the general perception that the schemes made a valuable contribution to the education and training provision for young people at work (i.e. generalised acceptibility) was a feature of both.

724. The evidence of relevance and acceptability to employers of schemes on the conventional models suggests a greater incidence of expressed 'reservation' than was found in Vocational Preparation. It should be remembered here, however, that it is very likely that employers are using quite different yardsticks and applying more demanding criteria to schemes catering for employees at higher skill levels.

725. In conventional schemes based on the 'segregated' model of education and training, the problems of matching are well known. The compilation of data (FEU 1980), on relationships between the on-the-job and off-the-job training and the educational component of conventional courses on the day-release model, revealed evidence that practioners in the different locations of Company, Training Centre, and College of Further Education had little knowledge of the activities of each other, particularly in the engineering fields. Also, in these fields, with practical content removed and little knowledge of ground covered in these elements, teachers frequently found difficulty in motivating students. Some practitioners had difficulty in seeing their workers in a unified way, which suggests it to be extremely unlikely that their students were undergoing an integrated experience.

However, in broad terms, there was no evidence of widespread antipathy of employers to mainstream provision on the traditional and transitional models, which were seen as broadly relevant to industrial practice, although undermined by the perceived lack of up-to-date experience of Further Education staff and poor communications and linkage, which were the main sources of complaint.

726. These findings are strongly reflected, too, in the recent BEC survey results which showed employers' perceptions to be generally positive, the majority regarding the course as broadly relevant, although less than one-half of Training Officers were satisfied that aims were being met and there was some concern that the course was not sufficiently vocational. The point about liaison and communication featured strongly, too. BEC employers considered that they had something positive to offer to the running of BEC courses, either in advisory roles or, more practically, in projects and assignments. They felt that little opportunity was taken to tap this.

727. Clearly, the Vocational Preparation models, with their inbuilt criteria of direct inter-agency cooperation at a local level, are structured to avoid these problems and it is these features which are reflected in the generally positive TRADEC and UVP results concerning liaison and communication.

The claimed disinterest of many employers in Further Education is by no means eliminated in Vocational Preparation. There is evidence of some success in both TRADEC and UVP in securing real employer interest and contributions in tangible terms, (e.g., provision of materials) far beyond that secured in most conventional courses. But direct contact with employers left the researchers with the impression that there is still a very long way to go in securing employer commitment to Vocational Preparation.

LEARNER INVOLVEMENT

728. Learner involvement in the selection/construction of the learning process can take place at a number of levels. The selection by the learner, in consultation with staff, of a set of courses or options making up a programme of study, in conventional courses (e.g. 'A' Level programmes) represents one level of learner involvement. Negotiation of the explicit statements of learning process which characterise the 'learning contract' represents another. So there is, again, City and Guilds and 'O' and 'A' Levels at one end of the spectrum, allowing selection from a set of standard alternatives, TEC and BEC in an intermediate position, affording opportunities for selection from a set of standard alternatives, together with specially devised course components, to Vocational Preparation at the far end, now embodying a requirement for a negotiated programme. An important element of this rationale is clearly that of student motivation. In a population previously characterised by low motivation, programmes which offer the opportunity for some degree of self-determination and self-selection are more likely to succeed in securing the commitment of their clients than are standard courses, it is argued. One of the recurrent problems, particularly in the Vocational Preparation provision for the unemployed, is that of poor self-image. While a requirement to negotiate learning with such students is extremely demanding on teaching staff in terms of skills, success in involving students in this way can do much to redress poor self-image, it is suggested - a step forward of fundamental importance if it can be achieved.

729. Real and effective negotiation in practice is still far from being realised in Vocational Preparation. However, many schemes, including TRADEC and UVP, are developing experience of involving learners and employers to a degree not experienced before, and the moves, though limited, are in the right direction.

The TRADEC studies showed learner involvement in development of the programme of study to be limited, in most cases, to selection of project work, with the employer frequently, but by no means always, playing the dominant role. Few schemes appeared successful in achieving a balance three-way process : either employer-involvement predominated at the expense of the learner, or vice versa. In comparison with other Vocational Preparation models, this picture of learner involvement is typical, as the experiences of described in ABC in Action suggest.

730. The findings concerning the way in which needs are translated into an integrated curriculum, in the NFER study (first phase), together with the subsequent case studies, showed varying degrees of learner involvement. Although, in a substantial proportion of cases, young people were involved to some degree in the design and management of their own learning, there was a tendency in some cases for learner preferences or choices to be preempted, either by the rigid application of a scheme specification, or by the employer. Both of these phenomena were amply represented in the TRADEC schemes investigated. There was also more evidence of clearer participation, for example, course committees in UVP than in TRADEC.

731. The difficulties of translation into practice of the outcomes of learner participation in selection are well known. The demands made on resources by individualised programmes frequently rule these out of court.

However, there is no doubt that client-centred teaching and learning approaches are very much in evidence in the implementation of UVP. In TRADEC, too, client-centredness is frequently found operating effectively but, again, some colleges found themselves having to revert from client-centred approaches in TRADEC to approaches geared to subject coverage in order to meet the content requirements with a widely spread group. This provides another example of the model's advantages in generic transferability being counterbalanced by disadvantages in constraints on teaching and learning.

732. Client-centred teaching and learning approaches are by no means the province solely of Vocational Preparation. The pressure of standardised examinations and assessments in, for example, City and Guilds, is frequently stated by practitioners to be a major cause of adoption of traditional teaching methods. In BEC, however, the recommended approach is strongly client-centred - the divergence from these in practice is a feature of implementation causing concern [BEC, 1982] Again, it is the 'syllabus coverage' constraint which seems to be the factor inhibiting intended operation here.

SOCIAL AND LIFE SKILLS

733. The variations in the treatment of Social and Life Skills in TRADEC schemes and in the emphasis placed upon it has been discussed in Chapter 4. The Social and Life Skills specification now represents a point of difference with evolving models of Vocational Preparation, in which Social and Life Skills is considered to be encompassed by the basic skills concept.

The four main models adopted are:

- integration of SLS content in the curriculum, involving periodic/regular double-staffed sessions

- integration of SLS content being handled by staff dealing with technical content

- integration and separate elements, SLS handled entirely through separate sessions.

734. The danger of integration, in which SLS becomes an adjunct to technical content, becoming contrived and distorted in some instances to fit it, as well as, undervalued and unevaluated, is evident in many of the schemes surveyed. However, the dangers of the perceived irrelevance of, and prejudice towards, separate 'General Studies' elements were also found in practice. The Stage 1 schemes most strongly influenced by the UVP development appeared to be the most successful in terms of SLS, both in terms of its adequate representation within the scheme, and the motivation of the learner.

The Distribution schemes, in which technical content and SLS content were so closely related as to be inseparable, fared particularly well. While the argument of Experience, Reflection and Learning concerning the interactive nature of personal development and the development of vocationally and socially required and useful skills and attributes is recognised, it can be used and accepted a little too glibly. In reality it is used all too often to justify claims about personal development dimensions which are neither explicit nor evaluated. It is the case, based on the evidence, that in a significant proportion of Engineering Zone schemes,
swallowed up in the emphasis, in practice, on the transmission of technical skill and knowledge and, as one Course Tutor put it, in the production of bits of metal.

735. The reservation is sometimes voiced, that double staffing, in order to interweave SLS dimensions with technical content in, for example, the treatment of Basic Concepts, can become contrived if the technical department is calling the tune and there is little joint planning. However, where Course Teams operate and communicate as intended, with the involvement on equal footing of General Studies staff, thematic approaches can be developed which are effective.

The NFER findings on Social and Life Skills in UVP schemes reinforce these findings: similar variations were found in UVP between integrated and separate models. The danger of the 'swallowing' of SLS by technical content was apparent in several examples claiming integration, and the subject of comment by the researchers.

Transmission of basic skills through the vehicle of vocational content/projects is likely to suffer similarly if intended basic skills outcomes are not specified and assessed.

In the TRADEC development there was little evidence from responding employers that they were aware of the existence, or otherwise, of SLS components, except in cases in which these were treated as separate elements - in these cases employers' perceptions are as expected!

736. In the City and Guilds Craft Studies Courses there is, of course, substantial evidence of the General Studies component causing considerable employer dissatisfaction, creating the impetus for developments such as the City and Guilds Communication Studies Certificate. There is also evidence of some (but by no means universal) learner dissatisfaction, (FEU, 1980 :122-125)In schemes with high numbers of craft-type learners and with separate General Studies components, learner dissatisfaction on the grounds of lack of relevance to 'what we're here for - learning about our jobs' was often in evidence.

737. In BEC General, where the notion of close relationships between technical content and SLS personal development led to the full integration of these dimensions from the inception of the course, the central themes clearly have a substantial emphasis on elements that would be considered central to SLS, as in the TRADEC Distribution, Food and Commercial schemes.

The high personal development content in BEC, as we have noted, leads sometimes to a questioning of its vocational relevance, and there is some evidence that the emphases of the course are often too concerned with the cognitive aspects of development, at the expense of the affective. This could not be a criticism levelled at TRADEC in the non-engineering schemes investigated, or in a proportion of engineering schemes

ACHIEVEMENT AND PROGRESS

738. Achievement and progress in TRADEC schemes is directly comparable neither with that in other Vocational Preparation schemes nor that in conventional craft or operator courses, since the aims and objectives of the schemes and/or the occupational levels and experience of the target groups are quite different.

739. Some tentative comparisons may be made with conventional courses. TRADEC case studies revealed comparable achievement in the projects elements of Engineering Zone TRADEC, in the technical sense, with that achieved in similar elements of Craft Studies couses (which generally devote less time to these elements). This observation was reflected in the perceptions both of college staff and some company personnel. Overall achievement in terms of range and expertise was, however, considered to be markedly lower.

740. In the Business Zone schemes, although achievement relative to ability was considered good in TRADEC, it was generally considered to be lower in academic terms than that in BEC General, reflecting the tendency for students to be allocated to TRADEC when it was considered that they would not be successful in BEC General. Progress, although widely appearing to be satisfactory, relative to previous attainment and perceived ability, was considered by some to be impeded by lack of challenge/'stretching' of young people in the scheme. This was attributed by some to the absence of the pass/fail concept. The benefits of TRADEC were regarded mainly in affective terms by employers who often regarded the scheme as an adjunct to their own training. Questions of achievement were not regarded as particularly relevant in this context and few companies, particularly in Distribution, appeared to have given attention to questions of achievement and progress in work-related skills of their employees engaged in TRADEC schemes.

741. Comparison of Stage 1 with other UVP schemes, in terms of achievement and progress, is rendered extremely difficult by the plethora of different orientations and emphases found in UVP schemes, as well as by the different lengths of scheme. However, generalised findings in respect of UVP suggest comparable levels of achievement in the sense of quality of work produced, particularly in the project area.

LEARNER MOTIVATION

742. These comparisons do not, however, tell us very much. A feature which has more meaning, in the comparison of schemes, is the learner motivation apparent in schemes, closely linked with achievement and progress.

743. Conventional models have tended to be characterised by poor learner motivation when attempting to cater for the target group of the 'traditional non-participant'. Hence, their limited impact in the past [FEU, 1980] and the consequent recognition of the need for unified approaches which linked learning directly with its point of application.

744. TRADEC and UVP have maintained schemes for this target effectively, with very small wastage and good completion rates which, in itself, is a marked advance on previous 'operator', or 'general', courses. Motivation in those schemes achieving good relationships with work experience and practice bears out the arguments for the use of the vocational interest as a vehicle, and its strength as a motivator.

QUALITY CONTROL

745. The moderation system, with the strengths and weaknesses reported in Chapter 7 is the principal instrument of quality control. Its attraction as a system stems from its involvement of practitioners, and its direct function as a control and development instrument. The weaknesses in the system, as it currently operates,

are that it does not extend to company-based elements requiring evidence only of employer involvement in the scheme and regarding existence of company-based elements as a 'plus' for the coordinator, with no reference to quality; that it is frequently 'skimped on' because of pressures on practitioners' time; that it is insufficiently strong to effect change in college environments which are not supportive of new developments; that, operating with a limited number of colleges at a regional level, it can become diluted through over-familiarity and a tendency to accept, too readily, difficulties claimed to be due to constraints of the system (particularly if the moderator has experienced the same difficulties himself).

746. However, the general approach certainly merits attention. In respect of the company-based elements, the work done by City and Guilds in connection with the former General Employment Award in mounting systems for supervision of in-company work, could provide a base for development here, although elaborate use of logs and diaries is fraught with difficulties of implementation, as has already been revealed in a number of contexts. Finding a system which facilitates and monitors the explicit learning process, not only in companies but between the different locations of learning, without elaborate mechanismss and masses of paper work, is what is required - it is a key development area for Vocational Preparation.*

747. Staff development has emerged as a major need in TRADEC, as it has in other Vocational Preparation and in transitional models by virtue of the condeptions of curriculum and skills required for successful implementation.

Some, but by no means all, of the departures of the TRADEC scheme from its intended operation were clearly attributable to difficulties of staff in interpreting and implenting the intentions of the scheme. Other departures arose, despite full awareness of the intentions, and were often attributable to the operational constraints of inadequate remission, difficulties of conducting liaison with large numbers of companies, inadequate facilities available, etc.

748. The staff development systems specifically geared to TRADEC, essentially those of occasional, centrally-organised programmes of seminars, publications of guidelines and the moderation system are well recognised by the YHAFHE to require development into a much more coherent strategy - indeed, it has been presented as a priority area within the new extended role of YHAFHE in Vocational Preparation.

The staff development issues and needs are quite clearly linked with those of the whole Vocational Preparation operation.

FEU, 1980, stated that in UVP, YOP and, more recently, ABC -

> 'many of the staff concerned are the same and many of their problems are common. What is needed is a unifying conceptual framework of staff development needs in the area of Vocational Preparation to support curriculum design and implementation'.
>
> (FEU, 1981)

With the development of foundation training the impetus is developed still further.

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*See FEU, 1982.

ASSESSMENT

749. The problems associated with the TRADEC assessment and certification system have been discussed in Chapter 8.

The strength of the system is that it provides certification linked with satisfactory completion (and therefore achievement), rather than with attendance only, thereby meeting the needs, now widely recognised, of young people for assessment and for its social recognition in the form of certification. The 'chance to gain a qualification' was given by 80 per cent of TRADEC learners surveyed as a main benefit of their participation. The UVP evaluation, too, showed the value attached by participants to certification in cases where this was linked with achievement (NFER, 1980: Chapter 10).

750. The weakness lies in the use of norm-referenced testing, which applies only to the immediate peer group and therefore conveys nothing of universal standards (normally the strength of criterion - referenced or norm-referenced testing in respect of the whole participant population). The final form of certification which conveys information only about the average balance of competence, in relation to the specific peer group of which the participant was part, but nothing of the individual areas of competence and achievement, is another weakness. The information useful to a current or prospective employer concerning specific capacities and achievements, to the learner in estimating his own performance and future learning needs, and teacher in determining appropriate placements and/or starting points for future learning is, therefore, absent. Integration of personal development assessments in the marking system also creates problems for staff unable to develop appropriate measures, particularly in the absence of clearly defined learning objectives, and of 'space' for recording of qualitative aspects of personal development (although these are, themselves, problematic and controversial) descriptive listing being confined to 'tasks done'. The avoidance of the pass/fail concept, widely considered to be inappropriate to the target group, was weakened when the Certificate specified a single mark which may be considered to convey average performance - the effect on the self-image and motivation of the young person falling short of this is probably not very different from that produced by failure. The change in Certification in this respect, during the period of the research, represents a significant improvement.

751. It is of interest that in the schemes developed by SCOTEC and SCOTBEC on the TRADEC model substantial changes have been introduced into both the assessment approaches and certification forms. SCOTEC has developed, for the Engineering Zone schemes, a bank of objective test items in an attempt to establish common standards and measures of achievement. A bank of Social and Life Skills items, too, has been developed. These items have been the subject of criticism by the UVP Research Fellows responsible for monitoring the Scottish development from a UVP standpoint. The main point of issue has been their narrowness and their status as adjuncts to technical content. Nevertheless, the ideas and approaches emerging

in the Scottish development are closer to the thinking emerging in respect of NTI than are the TRADEC (or former UVP) concepts of assessment. In Business Zone schemes, too, assessment grades, as opposed to marks, are allocated according to generilised criteria. e.g. in respect of course work.

A Submitted work which was very thoroughly prepared
B Submitted work which was thoroughly prepared
C Submitted work which was well prepared
D Submitted work which was quite well prepared
E Did not submit sufficient work to allow for complete assessment

This, too, represents an attempt to introduce greater meaning into the assessment process, for all parties to it.

752. The assessment and certification models under development by FEU, in respect of the wider Vocational Preparation development, and by examining bodies, noteably RSA and City and Guilds of London Institute, in respect of their Vocational Preparation Courses, represent attempts to resolve many of the issues of process, outcomes and standards raised and illustrated by the TRADEC experience.

753. The profile as an instrument of recording attainment with both formative and summative purposes is, of course, a key feature of development work; its use in the Vocational Preparation area was first elaborated in the 'A Basis for Choice'.

Profiles should, the FEU compilation suggests

> 'be designed in such a way as to present ..... attainments and experiences in a readily accessible form to its readers. It should have a clear relationship to the planned areas of the course to which it relates. The basis of a good profile is clear curriculum design, and woolly curriculum planning will not result in clear statements of achievement'.(FEU, 1982)

754. Profiles will, it is further argued, have elements in common and a profile of achievement during the years of transition from school to work should contain statements of achievement and experience in

(i) communications

(ii) numerical skills

(iii) planning and problem-solving

(iv) manipulative abilities

(v) the ability to operate in the environment in which the individual finds himself.

755. The two basic profile designs which have emerged from development work (FEU, 1982 : 11) are

(a) those based on lists of learner competences (illustrated by the RSA Vocational Preparation profile certificate) providing a summation document giving a statement of student achievement at the end of the course, unique to each student and (b) the basic checklisting processes piloted by FEU in ABC in Action, and by City and Guilds London Institute for the General Vocational Preparation course.

In the former system, assignements are accompanied by assessment schedules, so that the learner's work is marked to an agreed standard. Learners can return to assignments to reach a satisfactory standard, if necessary, and achievement is entered on the Certification profile. In the latter system, the profile is similar to those under development for the NTI pilot schemes (MSC/CGLI) using FEU grid-style profiles.

756. It has been noted that, in the context of the New Training Initiative, which envisaged a modular but progressive skill training scheme into which both young people and adults can seek access at a variety of levels, the concept of a profile meeting the above criteria and capable of being updated and validated by different agencies appears not only possible, but necessary (FEU, 1982 : Profiles) Systems adopting 'cryptic symbols' for poorly understood gradings seeking to conflate measures of performance to a single aaggregated mark are in all forms of provision, conventional provisions included, increasingly acknowledged as deficient.

757. For TRADEC, as an adaptive system seeking to meet needs not only of young adults in and outside employment, but also those of adults periodically retraining, the development of assessment approaches and a profiling system which meets emerging needs would seem to be of prime importance. The function of the types of profiling system described in bringing assessment into the teaching and learning process can help to achieve the aims which TRADEC currently aspires to but fails to achieve in most instances - but the 'standards' issue will have to be tackled, in the context of the need to link internal assessment to national standards, via the profile.

758. It should not be forgotten that the assessment and certification approaches of TRADEC predated current developments, and that, at the time of development, they represented a break from the traiditional mould. Now, however, accumulated experience and new ideas need to be taken on board.

APPLICATIONS OF TRADEC

759. For learners in Work Experience schemes, TRADEC can clearly fulfil a role, and has clearly had successes where alternative forms of college provision (e.g. Social and Life Skills) have encountered difficulties in maintaining the participation of their intended target. The massive changes to be introduced under NTI render the future uncertain, but it appears that the features of the clear and practical vocational application of TRADEC give it advantages over other forms of provision available to WEEP youngsters.

760. Evidence concerning the operation of Social and Life Skills and related programmes for WEEP trainees (HMI Survey 1981)* has shown considerable variation in their structure and operation, ranging from the non-systematic to the highly structured, and from centrality of affective aims to aims centred on work-related development. Recording of student progress was generally found to be weak, Vigorous approaches to curriculum planning were found to be necessary.

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* Unpublished draft

Other college-based programmes with clear and systematic vocational orientations under development for NTI seem to have a comparable degree of success. As expected, a variety of models can provide the vehicle for effective learning and self-development, providing they meet fundamental criteria.

761. In respect of pre-vocational courses, the experience of application of the TRADEC model described in the YHAFHE booklet (YHAFHE) is in practice very loose, involving use of some ideas and experience drawn from TRADEC, rather than application of the model as a whole. Considerably more work needs to be done (and is currently under way) to clarify the use of the model here. RSA and City and Guilds Vocational Preparation models already have a good foothold, having developed their schemes from the ABC base. While TRADEC intends and claims to be an adaptive system, clearer requirements need to be placed on its operation in respect both of Work Experience and pre-vocational groups, with particular attention not only to the assessment issues discussed, but also to guidance and counselling functions and their link with assessment, and to basic skills. The experience of TRADEC in developing generically relevant programmes of work preparation from a college base should, with the provisions given, give it an increasing role in this area, too.

762. The other areas ofapplication of TRADEC remain relatively undeveloped. Here, again, clearer specification of requirements which will be placed on the system in respect of particular groups seems necessary, and further pilot trials accompanied by systematic evaluation will be required before any objective assessment can be made of the real potential of TRADEC in these areas.

CONCLUDING REMARKS

763. The preceding Chapters have served to present the TRADEC system in action, to examine areas of strength and weakness in its operation and to highlight areas in which the model appears to require development if it is to be aligned with emerging thrusts in the national education and training systems.

764. The synthesis of the research findings, and their implications within the context of the changes introduced by the New Training Initiative, are presented in TRADEC I. The argument that the TRADEC approach clearly represents a potential vehicle for delivery of programmes of vocational preparation and for programmes associated with new models of skills training emerging under NTI, but that in both areas clearer requirements need to be placed on its operation if it is to perform satisfactorily in respect of any given target.

765. The TRADEC system is asserted by YHAFHE to be an evolving system which is constantly under review. It is encouraging to note that review in the areas of application to prevocational groups and of 'basic skillsP are already underway. Action to render the context of operation

more amenable to non-traditional developments, such as TRADEC, are also under way through applications for regrading in terms of Burnham levels, and through improved monitoring and support of delivery, involving extended Staff Development activity.

766. That the experience afforded by the TRADEC system can make an important contribution to development work in the Vocational Preparation area, and beyond it, is undoubted. That the system represents a pioneering initiative emerging from a regional body and predating much current thinking at national level, and that it has served the needs of substantial numbers of young people in its ten years of operation, whose opportunities would otherwise have been limited, both commend it. Its future lies in the capacity of the system to continue to evolve and to learn from experience and expertise gained outside, as well as within it.

It is the intention of the researchers that this study will support, serve and promote that process of evolution.

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FEU Publications

TRADEC II is one of a number of FEU publications intended to inform teachers and others and to stimulate professional discussion about matters of concern to the FE service.

TRADEC I Synthesis report and *TRADEC III Research design and methodology* make up the three volumes of *TRADEC*.
TRADEC III is on limited availability.

Other FEU publications relevant to *TRADEC* include:

Experience, reflection, learning: suggestions for organisers of schemes of unified vocational preparation	April 1978
Day release: a desk study	January 1980
Vocational preparation	January 1981
ABC in action: a report from an FEU/CGLI working party on the piloting of "A basis for choice"	September 1981
Curriculum change: on evaluation of TEC programme development in colleges	December 1981
NTI: joint statement by MSC/FEU No.1 *General principles*	January 1982
Profiles: a review of issues and practice in the use and development of student profiles	September 1982
Basic skills	November 1982
Computer aided design in FE: some suggestions on the inclusion of CAD topics in Mechanical Engineering courses	November 1982
A basis for choice: report of a study group on post-16 pre-employment courses	December 1982
Progressing from vocational preparation: towards a solution	December 1982

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